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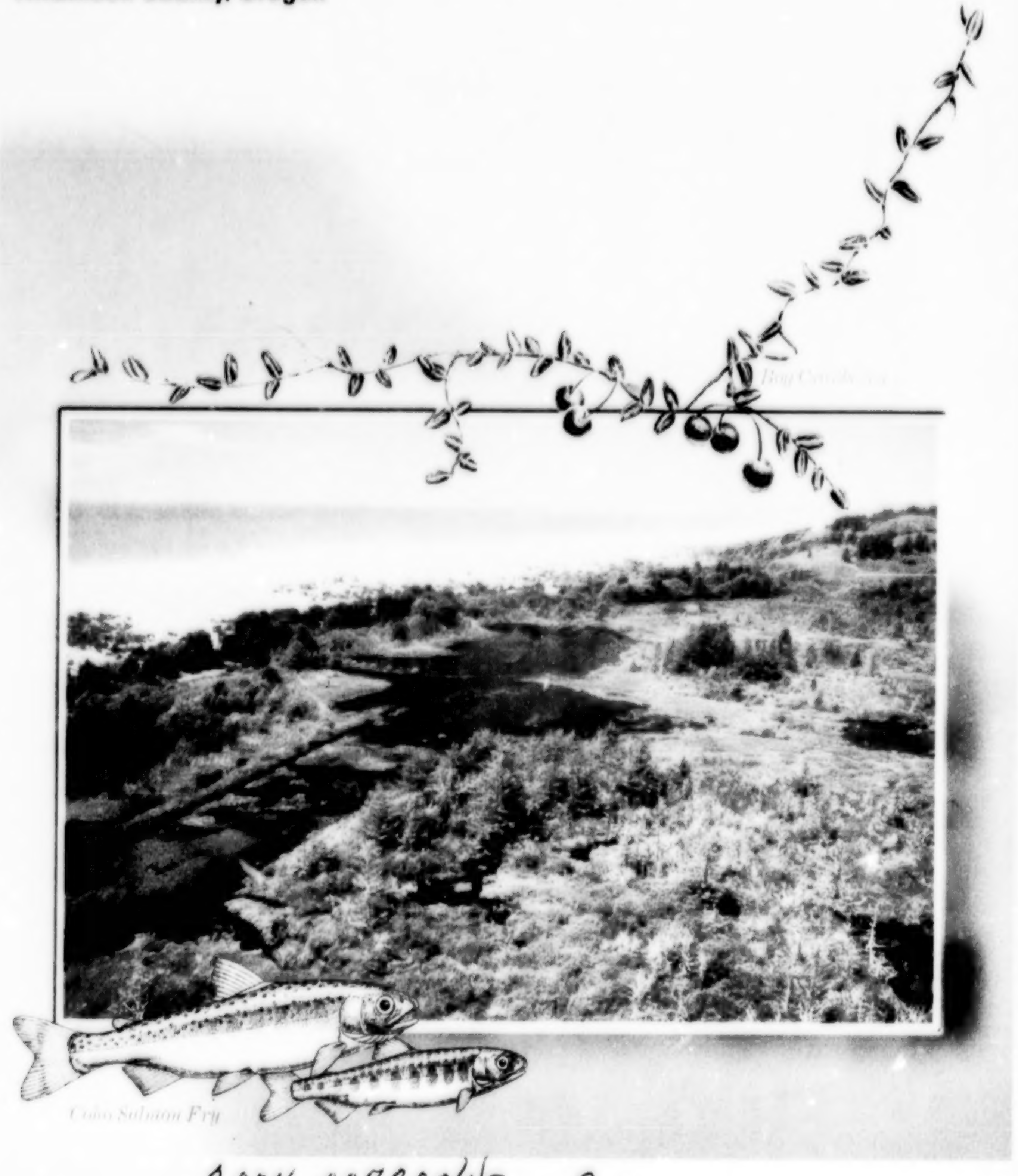
U.S. Fish & Wildlife Service

# Neskowin Marsh Unit Addition Nestucca Bay National Wildlife Refuge

## *Environmental Assessment, Land Protection Plan, and Conceptual Management Plan*

**Tillamook County, Oregon**



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U.S. Department of the Interior
Fish and Wildlife Service

# ENVIRONMENTAL ASSESSMENT

## *Neskowin Marsh Unit Addition*

*Nestucca Bay National Wildlife Refuge*
*Tillamook County, Oregon*

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April 2000

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**Tillamook County, Oregon**

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# Environmental Assessment
## Neskowin Marsh Unit Addition
## Nestucca Bay National Wildlife Refuge

Tillamook County, Oregon
April 2000

## Chapter 1. Purpose and Need for Action

### 1.1 INTRODUCTION

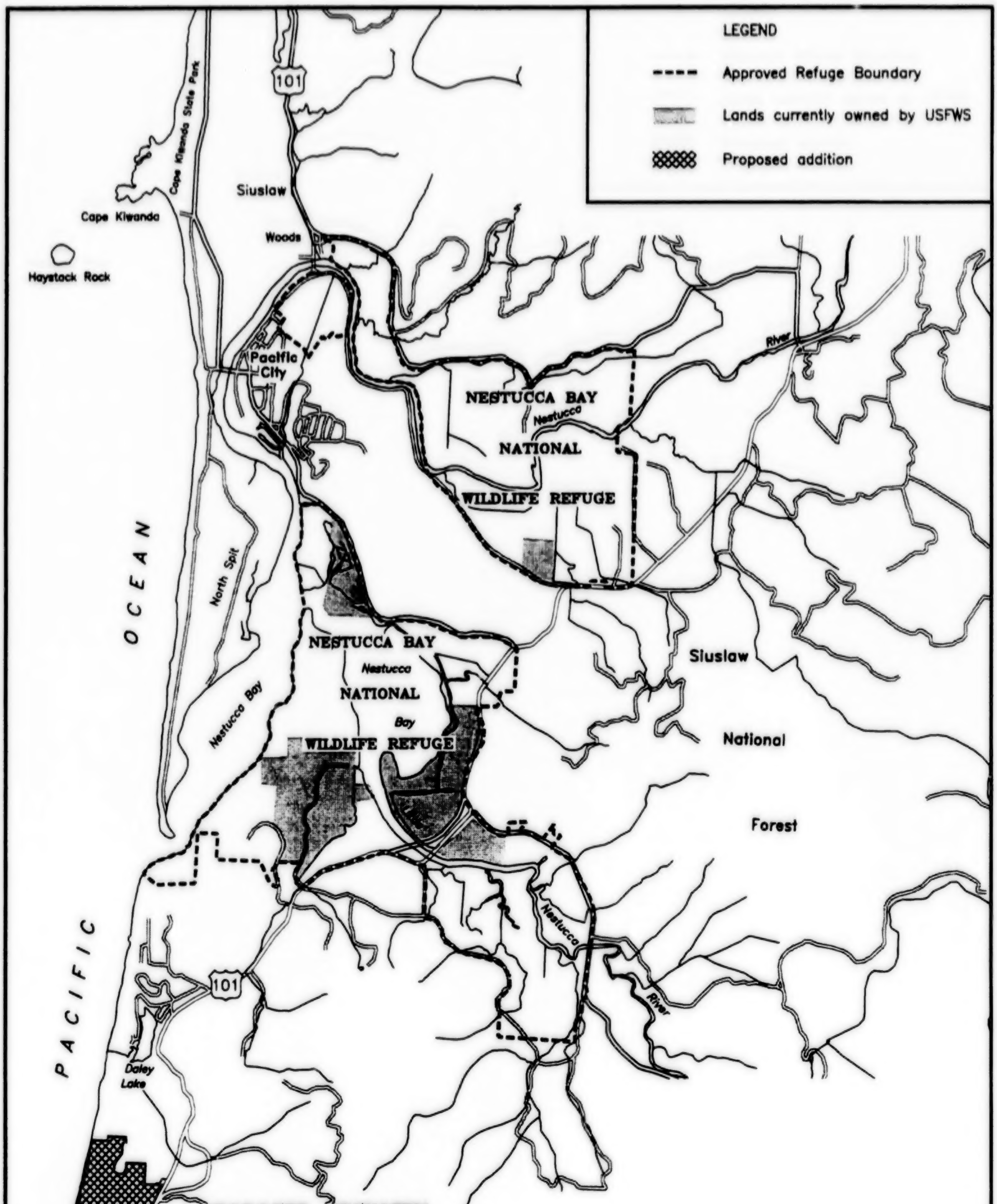
In compliance with the National Environmental Policy Act (NEPA) of 1969, the U.S. Fish and Wildlife Service (Service) has prepared this environmental assessment (EA) to evaluate the environmental consequences associated with expanding the Nestucca Bay National Wildlife Refuge.

The Service is responsible for the conservation of migratory birds, anadromous fish, and Federally listed endangered and threatened plant and animal species occurring in the United States. Nestucca Bay National Wildlife Refuge (Refuge) was established in 1991 to (1) protect wintering habitat for Aleutian Canada geese, listed as threatened under the Endangered Species Act, (2) protect wintering habitat for dusky Canada geese, and (3) protect diverse coastal wetland habitats and upland habitat buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife. The approved Refuge boundary is approximately 3,060 acres. The acquisition program is ongoing at the Nestucca Bay Refuge and the Service has acquired approximately 524 acres in fee title to date.

The Nestucca Bay Refuge is located in southern Tillamook County along the northern Oregon Coast (see Figure 1). The community of Pacific City lies near the northwest corner of the approved Refuge boundary. The City of Tillamook, the county seat, is located approximately 30 miles north of the Refuge along Highway 101.

### 1.2 PROPOSED ACTION

The Service is proposing to protect fish and wildlife habitat by establishing the Neskowin Marsh Unit of the Nestucca Bay National Wildlife Refuge in southern Tillamook County. The approved Refuge boundary for the Neskowin Marsh Unit would allow the Service to negotiate with willing participants within the approved boundary to acquire lands or interests in land and water. Lands or interests in land acquired by the Service, would be managed as a part of the National Wildlife Refuge System (see Section 1.7).



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NESTUCCA BAY NATIONAL WILDLIFE REFUGE
PROPOSED NESKOWIN MARSH ADDITION
STUDY AREA MAP
*Figure 1.*

## 1.3 PURPOSE AND NEED FOR ACTION

The Service is proposing the addition of the Neskowin Marsh Unit to Nestucca Bay Refuge in response to an opportunity to acquire properties from willing sellers, in order to conserve the Neskowin Marsh complex and associated rare coastal bog ecosystem, and to assist in the recovery of species that are Federally listed as threatened and endangered.

Neskowin Marsh is the largest unprotected freshwater marsh remaining on the Oregon Coast. It is a rare and outstanding example of a coastal bog ecosystem with exceptional biological values. In addition to the rare native plant communities, Neskowin Marsh supports a diversity of fish and wildlife species, including the Federally listed coho salmon.

The Oregon Coast is experiencing rapid growth in residential, resort, and recreational development. Many of these developments threaten the integrity of coastal ecosystems that support existing fish and wildlife populations. This type of growth is occurring in and adjacent to the community of Neskowin. For example, a new sewage treatment plant was completed in Neskowin in 1995 and there are currently four new housing developments adjacent to or overlooking Neskowin Marsh. There are also additional plans for further developments. Neskowin Marsh is currently privately owned and further development in and around Neskowin Marsh could severely impact the unique habitat it provides.

The purpose of proposing the addition of the Neskowin Marsh Unit to the National Wildlife Refuge System is to provide the Service with an opportunity to (1) protect key habitats for threatened and endangered species such as the coho salmon, (2) protect freshwater wetlands, including a rare and unique coastal bog ecosystem, (3) provide a diversity of habitats for mammals, amphibians, reptiles, and migratory waterfowl, shorebirds, wading birds, and songbirds, and (4) develop compatible wildlife-dependent recreational activities in partnership with the local community.

## 1.4 STUDY AREA

The study area is located in the community of Neskowin (see Figure 1). The study area is bounded on the east by Highway 101 and on the south by Neskowin Beach State Wayside. The western edge of the project area is generally bounded by Hawk Street and the northern boundary is the Sahhali Shores subdivision.

## 1.5 DECISIONS TO BE MADE

Based on the analysis documented in this environmental assessment, the Regional Director for the U.S. Fish and Wildlife Service Pacific Region will determine whether or not to expand the Nestucca Bay National Wildlife Refuge boundary. If the Regional Director determines that expanding the boundary is appropriate, a decision will also be made as to the location of the boundary and whether or not the selected boundary would have significant impacts on the quality of the human environment.

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## 1.6 PUBLIC PARTICIPATION AND ISSUE IDENTIFICATION

Issues and concerns were identified through the public scoping process, which included a public meeting in October 1998. Comments were received from meeting attendees and through e-mail, mail, and phone calls. Based on the comments and feedback, the Service identified biological, social, and economic concerns relating to the proposed action that were considered when preparing this environmental assessment.

As a result of the issue identification process, several issues were identified and are described below. These issues were used to define the scope of the affected environment described in Chapter 3. The environmental consequences described in Chapter 4 address the biological, social, and economic factors relevant to these issues.

### 1.6.1 Biological Issues- Fish and Wildlife Habitat Protection

Individuals recognize the biological importance of Neskowin Marsh and expressed the desire to include the area as a part of the Nestucca Bay Refuge.

Concern was expressed that the proposed Neskowin Marsh Unit boundary did not go far enough toward protection of the entire marsh complex and suggestions were made to include Neskowin Beach Golf Course within the Neskowin Marsh Unit boundary.

### 1.6.2 Social and Economic Issues

Since the Federal government does not pay property taxes, there was concern expressed that transferring ownership from private individuals to the Service would decrease the amount of property tax revenue received by Tillamook County.

### 1.6.3 Issues Not Selected for Detailed Analysis

The following areas of concern have been noted by the Service but are not carried through in further analysis in the Environmental Assessment because they are outside of the scope of this project or because they can be addressed with existing laws or Service regulations and policy.

- **Comment**: Would expanding the Refuge subject landowners within the boundary or landowners adjacent to the boundary to additional government regulations?

  **Response**: There is no regulatory buffer zone around national wildlife refuges. Private lands would remain in control of the owner until such time that the owner decides to sell the property. The Service only has the authority to manage lands that have been acquired in fee title or lands with secured interests such as a conservation easement.

- **Comment:** Will the Service condemn land instead of buying from willing sellers?

  **Response:** It is the policy of the Service to acquire areas from willing participants. Landowners within the project boundary who do not wish to sell their property or any other interest in their property are under no obligation to negotiate with or sell to the Service. In all acquisitions, the Service is required by law to offer 100 percent of fair market value, as determined by an approved appraisal that meets professional standards and Federal requirements.

- **Comment:** Will the Service allow public uses?

  **Response:** The Service is required by the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee) to identify, prior to acquisition of the new refuges or refuge additions, existing owner-authorized, wildlife-dependent recreational activities that would be allowed to continue on an interim, or temporary basis, following Service acquisition. For the proposed Neskowin Marsh Unit, wildlife observation, photography, environmental education, and interpretation would be allowed on a limited basis. The Conceptual Management Plan, bound with this document after the Land Protection Plan, provides additional information on public uses.

## 1.7 NATIONAL WILDLIFE REFUGE SYSTEM AND AUTHORITIES

### 1.7.1 Mission of the National Wildlife Refuge System

The mission of the U.S. Fish and Wildlife Service is to conserve, protect, and enhance the Nation's fish and wildlife and their habitats for the continuing benefit of the American people. The Service is the primary Federal agency responsible for migratory birds, endangered plants and animals, certain marine mammals, and certain anadromous fish. This responsibility to conserve our Nation's fish and wildlife resources is shared with other Federal agencies and State and Tribal governments.

As part of this responsibility, the Service manages the National Wildlife Refuge System (Refuge System). The Refuge System is the only nationwide system of Federal land managed and protected for wildlife and their habitats. The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997).

Unlike other Federal lands that are managed under a multiple-use mandate (e.g. national forests administered by the United States Department of Agriculture Forest Service and public lands administered by the United States Department of the Interior Bureau of Land Management), units of the National Wildlife Refuge System are managed as primary-use areas. That is, they are managed primarily for the benefit of fish, wildlife, and their habitats. Refuges are closed to uses other than conservation and management of fish, wildlife and plants, including public use, unless specifically and formally opened.

Before any uses are allowed on a national wildlife refuge, Federal law requires a formal compatibility determination. A compatible use is defined as a use that, in the sound professional judgement of the refuge manager, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the affected refuge. Sound professional judgement is defined as a decision that is consistent with the principles of fish and wildlife management and administration, considers available sciences and resources (funding, personnel, facilities, and other infrastructure), and adheres to the requirements of the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee) and other applicable laws. If resources are not available to design, operate, and maintain an activity, the refuge manager will take reasonable steps to obtain outside assistance from the State and other conservation interests. If adequate funding or staffing assistance cannot be identified, then the activity cannot be allowed.

### 1.7.2 Guiding Principles of the National Wildlife Refuge System

Fish and wildlife will not prosper without high-quality habitat. and without fish and wildlife, traditional uses of refuges cannot be sustained. The Refuge System will continue to conserve and enhance the quality and diversity of fish and wildlife habitat within refuges. Other guiding principles follow.

- The Refuge System provides important opportunities for compatible wildlife-dependent public use activities including wildlife observation and photography, environmental education and interpretation, fishing, and hunting.

- America's fishing and hunting enthusiasts were among the first partners who insisted on protecting valuable wildlife habitat within wildlife refuges. Conservation partnerships with other Federal, State, and local government agencies, tribes, non-profit organizations, private industries, businesses, and members of the general public can make significant contributions to the growth and management of the Refuge System.

- The public should be given a full and open opportunity to participate in decisions regarding acquisition and management of our national wildlife refuges.

### 1.7.3 Goals of the National Wildlife Refuge System

- To preserve, restore, and enhance in their natural ecosystems (when practicable) all species of animals and plants that are endangered or threatened with becoming endangered.

- To perpetuate the migratory bird resource.

- To preserve a natural diversity and abundance of fauna and flora on refuge lands.

- To provide an understanding and appreciation of fish and wildlife ecology and the human's role in the environment; and to provide refuge visitors with high quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent these activities are compatible with the purposes for which the refuge was established.

### 1.7.4 Purpose and Goals of the Nestucca Bay National Wildlife Refuge

A refuge purpose may be specified in or derived from Federal law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum. In addition to providing a basis for making compatibility determinations, a refuge's purpose also serves as a vision or broad mission statement for refuge management and the public.

Nestucca Bay Refuge was established in 1991 with the purposes to (1) protect wintering habitat for Aleutian Canada geese, listed as threatened under the Endangered Species Act, (2) protect wintering habitat for dusky Canada geese, and (3) protect diverse coastal wetlands habitats and upland habitat buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife.

The following goals of the Nestucca Bay Refuge reflect the core mission of the Service to protect fish and wildlife resources of national importance while providing compatible opportunities for the public to appreciate and enjoy the natural heritage of the region.

- Protect, restore, and develop habitats for and otherwise support recovery of Federally listed endangered and threatened species and help prevent the listing of candidate species and species of management concern.

- Protect, restore, and develop a diversity of habitats for migratory birds such as shorebirds, wading birds, and neotropical songbirds, with emphasis on waterfowl.

- Protect, restore, and develop a diversity of habitats for anadromous fish such as coho, chinook, and chum salmon, steelhead, and cutthroat trout.

- Protect and restore a diversity of native habitats for indigenous fish, wildlife, invertebrate, and plant species of the Oregon coastal ecosystem.

- Provide high quality opportunities for wildlife-dependent recreation to enhance public appreciation, understanding, and enjoyment of fish, wildlife, habitat, and cultural resources.

## 1.8 HABITAT PROTECTION AND LAND ACQUISITION PROCESS

Once a Refuge expansion boundary is approved, habitat can be protected through various means, such as (1) the purchase of fee title or conservation easements, (2) no-cost transfers, (3) donation, and (4) exchanges. It is the established policy of the Service to acquire land or interests in land from willing sellers. The authorities for the acquisition of the proposed Refuge Unit are the Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742(a)-754), Endangered Species Act of 1973, as amended (16 U.S.C. 1532-1544, 87 Stat. 884), Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d) and Refuge Recreation Act of 1962, as amended (16 U.S.C. 460k-460k-4).

Acquisition funding could be made available through the Land and Water Conservation Fund Act of 1965, or other sources to acquire lands, waters, or interest therein for fish and wildlife conservation purposes. The Federal monies used to acquire private lands through the Land and Water Conservation Fund are derived primarily from oil and gas leases on the outer continental shelf, excess motorboat fuel tax revenues, and sale of surplus Federal property.

The basic considerations in acquiring land are: (1) biological significance of the land, (2) existing and anticipated threats to wildlife resources, and (3) landowners' willingness to sell or otherwise make property available to the project. The purchase of refuge lands proceeds according to availability of funds.

The Service has no authority to acquire land or negotiate agreements on behalf of the National Wildlife Refuge System (NWRS) except within an approved refuge acquisition boundary. Therefore, the proposed boundary provides opportunities for the landowners and the Service to work cooperatively. Once a boundary is approved, the Service still has no authority to protect or manage wildlife or habitat on a given property as part of the NWRS unless and until a property owner willingly enters into an agreement with the Service. Protection as part of the NWRS begins when a refuge boundary has been approved and a property owner has willingly signed a contract with the Service. Methods of habitat protection include fee title acquisition, conservation easement, cooperative agreement, and memorandum of understanding. The Service may lease land from the State or manage State lands through cooperative agreement.

Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended, requires that the Service offer a landowner 100 percent of fair market value (as determined by an approved appraisal) of the property and provide certain benefits and payments to persons displaced by the acquisition of land.

Under provisions of the Refuge Revenue Sharing Act (Public Law 91-646), the Service would annually reimburse Tillamook County to offset property tax revenue lost as a result of acquisition of private property. This law states that the Secretary of the Interior (Secretary) will pay to each county in which an area acquired in fee title is situated, the greater of the following amounts:

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- An amount equal to the product of 75 cents multiplied by the total acreage of that portion of the fee area which is located within such county.
- An amount equal to three-fourths of 1 percent of the fair market value, as determined by the Secretary, for that portion of the fee area that is located within such county.
- An amount equal to 25 percent of the net receipts collected by the Secretary in connection with the operation and management of such fee area during each fiscal year. If a fee area is located in two or more counties, however, the amount for each county shall be apportioned in relationship to the acreage in that county.

There have been occasions where payments to the counties have been less that the legislated amounts because of funding deficits. Congress may appropriate, through the budget process, supplemental funds to compensate local governments for any shortfall in revenue sharing payments. The Refuge Revenue Sharing Act also requires that Service lands be reappraised every five years to ensure that payments to local governments remain equitable. Payments under this Act would be made only on lands that the Service acquires in fee title. On lands where the Service acquires only partial interest through easement, all taxes would remain the responsibility of the individual landowner. Refuge revenue sharing payments for Fiscal Year 1999 were approximately 62 percent of the legislated amount.

As a Federal agency, the Service may exercise the power of eminent domain, unless otherwise restricted or prohibited by Congress. However, it is the established policy of the Service to acquire land or interests in land from willing sellers. The Service rarely uses condemnation. The Service recognizes the possible social and economic impacts of acquiring private property by exercising the right of eminent domain; therefore, the Service does its utmost to avoid using this approach. In recent years, this has become increasingly true as greater emphasis has been placed on the willing seller policy. Only one-tenth of one percent of ownerships were acquired through the use of condemnation. Some landowners have found it to their benefit for agencies to use the power of eminent domain to clear title or for other reasons.

# Chapter 2. Alternatives, Including the Preferred Alternative

## 2.1 INTRODUCTION

Chapter 2 describes two alternative methods for achieving the proposed action (see section 1.2). The alternatives include a no action alternative, and two action alternatives that identify two options for Refuge boundary expansion. If one of the action alternatives is selected for implementation, it would provide the Service with the authority to acquire additional lands as a part of the Nestucca Bay National Wildlife Refuge. The alternatives were developed as a result of input received from the public during the public scoping period.

If either one of the action alternatives is selected, current and future lands acquired by the Service would be administered in accordance with the National Wildlife Refuge System Administration Act, as amended by the National Wildlife System Improvement Act, Refuge Recreation Act, and other relevant legislation, executive orders, regulations, and policies. Management activities could include monitoring the status of endangered, threatened, and sensitive species, controlling non-native species, restoring native habitats, providing wildlife-dependent recreational, interpretive, and educational opportunities, and coordinating with local, Tribal, State, and Federal agencies.

The Conceptual Management Plan for the proposed Refuge expansion contains a general description of the proposed management program. A Comprehensive Conservation Plan would be developed at a later date to provide detailed management guidance. The Land Protection Plan identifies land acquisition strategies. The Conceptual Management Plan and Land Protection Plan are bound with this document after this Environmental Assessment.

Payments to the County under the terms of the Refuge Revenue Sharing Act would be applied to all lands acquired in fee title (see section 1.8 Habitat Protection and Land Acquisition Process). Public use would be authorized only when it is compatible with the mission of the National Wildlife Refuge System and Refuge purposes.

## 2.2 ALTERNATIVE 1 (No Action)

This alternative is required by NEPA and serves as a baseline to compare action alternatives. Under this alternative, the current approved Refuge boundary would not be changed. Habitat would be protected through the existing land-use and regulatory controls administered by State and Federal government agencies. A portion of the study area would likely continue to be used as a golf course.

## 2.3 ALTERNATIVE 2 ( 320-Acre Addition)

Under Alternative 2, the Service has identified approximately 320 acres of land to be included within the approved boundary of the proposed Neskowin Marsh Unit (see Figure 2). This would expand the approved boundary of the Nestucca Bay Refuge from 3,061 acres to an estimated 3,381 acres.

This alternative would protect a variety of habitats which are representative of the Neskowin Marsh ecosystem, focusing on the protection of the relatively undisturbed northern portion of Neskowin Marsh and the surrounding fringe of upland habitat. Over time, this alternative may result in the acquisition and management of approximately 109 acres of freshwater marsh, 48 acres of peat bog, 21 acres of forested lagg, 39 acres of upland meadow, 48 acres of upland forest, 19 acres of upland shrub, and 36 acres of dune (see Table 1).

Alternative 2 is comprised of 11 tracts of land with 10 separate landowners. All lands included in this alternative are privately owned.

## 2.4 ALTERNATIVE 3, THE PREFERRED ALTERNATIVE (375-Acre Addition)

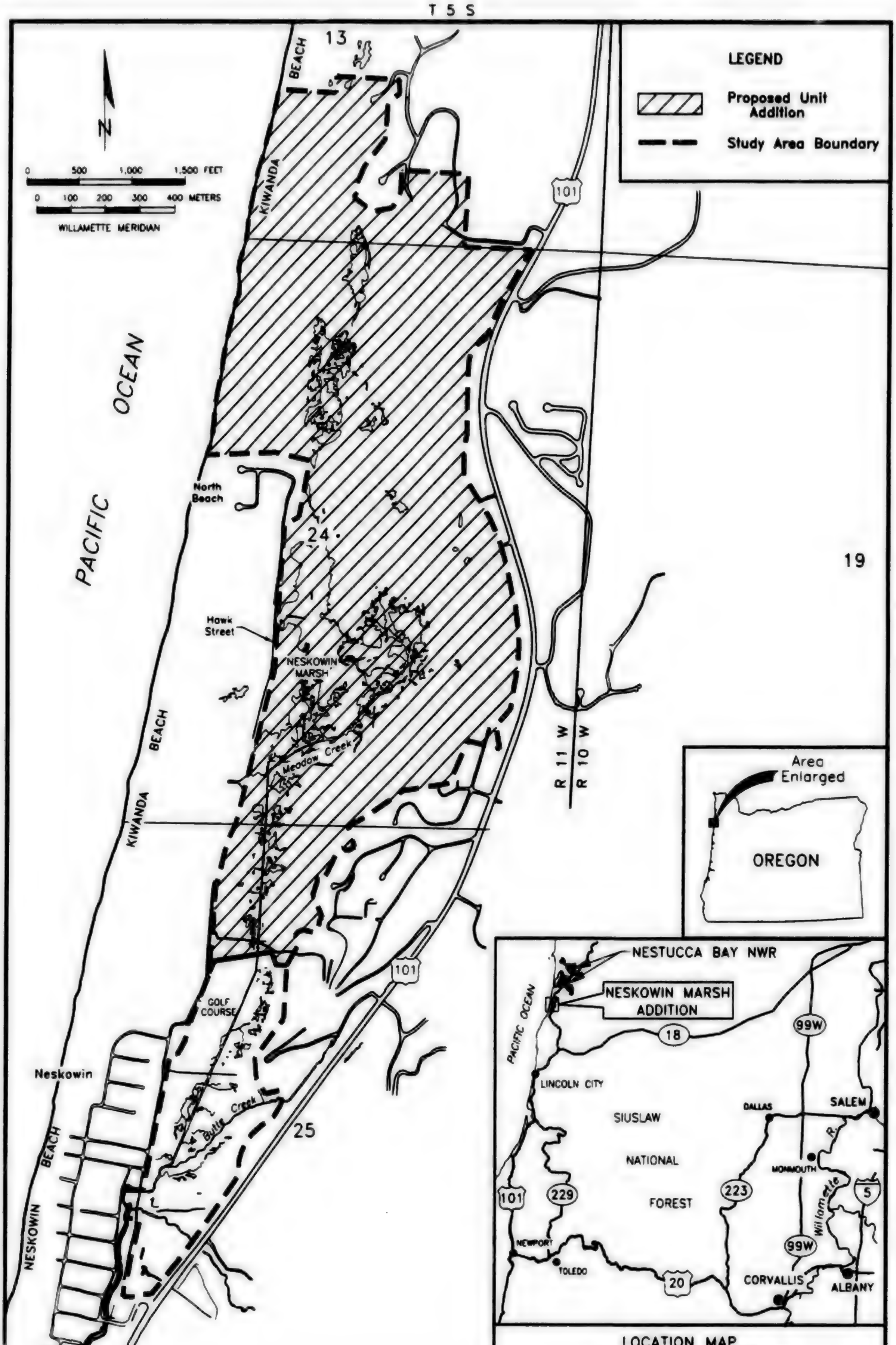
Under Alternative 3, the Service has identified approximately 375 acres of land to be included within the approved boundary of the proposed Neskowin Marsh Unit (see Figure 3). This would expand the Nestucca Bay Refuge boundary from 3,061 acres to 3,436 acres. Alternative 3 is the preferred alternative for implementation.

Over time, this alternative may result in the acquisition and management of approximately 116 acres of freshwater marsh, 48 acres of bog, 21 acres of forested lagg, 39 acres of upland meadow, 48 acres of upland forest, 19 acres of upland shrub, and 36 acres of dune (see Table 1). This alternative emphasizes acquisition of the entire Neskowin Marsh complex, including the Neskowin Beach Golf Course (48 acres) and freshwater marsh just south of the golf course. If the golf course is acquired, the Service would no longer manage it as a golf course.

Alternative 3 is comprised of 15 tracts of land with 12 separate landowners. All lands included in this alternative are privately owned.

## 2.5 ALTERNATIVES CONSIDERED BUT NOT GIVEN DETAILED STUDY

During the public scoping process, it was suggested that the proposed expansion boundary be extended to the north to include small wetlands south of Daley Lake. This area was reviewed during the early, internal planning discussions which identified priority areas for acquisition. Because of their location in a separate watershed and because there is not an immediate threat of loss from development, the wetlands just south of Daley Lake were not identified as a high priority, and, therefore, are not considered in detail under this analysis. These lands, however, could be considered in the future under additional Refuge planning processes.



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PROPOSED NESKOWIN MARSH UNIT ADDITION - Alternative 2
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

*Figure 2.*

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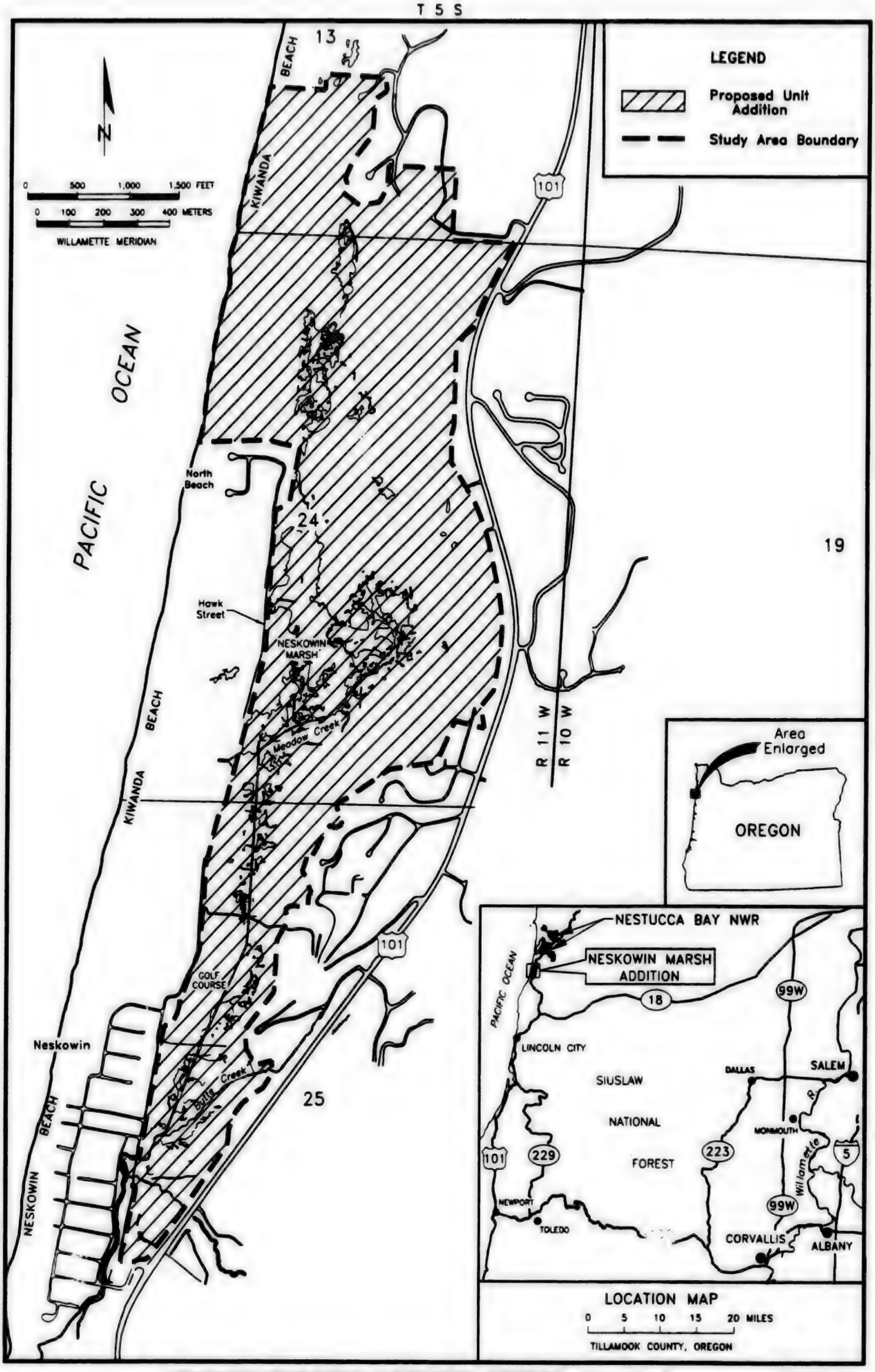

PROPOSED NESKOWIN MARSH UNIT ADDITION - Alternative 3
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

FEBRUARY 2000

*Figure 3.*

## 2.6 COMPARISON OF ALTERNATIVES

Table 1 displays the acres of habitat to be protected under each alternative. Table 2 provides a comparative summary of each alternative relating to the issues described in Chapter 1.

### Table 1: Acres of Land Cover Type by Alternative

| Land Cover | Alternative 1 No Action (Acres) | Alternative 2 (Acres) | Alternative 3 Preferred Alternative (Acres) |
|---|---|---|---|
| Freshwater Marsh | 0 | 109 | 116 |
| Bog | 0 | 48 | 48 |
| Forested Lagg | 0 | 21 | 21 |
| Upland Meadow | 0 | 39 | 39 |
| Upland Forest | 0 | 48 | 48 |
| Upland Shrub | 0 | 19 | 19 |
| Dunes | 0 | 36 | 36 |
| Golf Course | 0 | 0 | 48 |
| **Total Acres** | **0** | **320** | **375** |

### Table 2: Comparative Summary of Alternatives 1, 2, and 3.

| Issue | Alternative 1 No Action | Alternative 2 | Alternative 3 Preferred Alternative |
|---|---|---|---|
| **Habitat Protection** | The Refuge boundary would not be expanded. | The Refuge boundary would be expanded by an estimated 320 acres.<br>The existing rare and unique habitats associated with Neskowin Marsh would be conserved and protected to provide habitat for migratory songbirds, waterfowl, wading birds, threatened and endangered species, anadromous fish, and native species of plants and animals. | The Refuge boundary would be expanded by an estimated 375 acres.<br>The protection of the existing marsh would be the same as Alternative 2.<br>Alternative 3 would provide an opportunity to protect the entire marsh complex by including the Neskowin Beach Golf Course and wetlands just south of the golf course. Protection of this area would provide for future opportunities for restoration of the southern portion of the marsh back to freshwater wetlands. |

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| Issue | Alternative 1<br>No Action | Alternative 2 | Alternative 3<br>Preferred Alternative |
|---|---|---|---|
| **Lands Removed from Tax Rolls** | No lands would be removed from the County tax rolls. | As much as 320 acres could be removed from the County tax rolls. However, the County would receive annual payments as provided for under the Refuge Revenue Sharing Act. Often times, refuge revenue sharing payments equal or exceed the amount that would have been collected from taxes in private ownership. | As much as 375 acres could be removed from the County tax rolls. However, the County would receive annual payments as provided for under the Refuge Revenue Sharing Act. Often times, refuge revenue sharing payments equal or exceed the amount that would have been collected from taxes in private ownership. |

# Chapter 3. Affected Environment

## 3.1 INTRODUCTION

This chapter describes the existing biological, social, and economic resources within the study area that may potentially be affected by the alternatives.

## 3.2 GENERAL DESCRIPTION

The 375-acre study area is located in southern Tillamook County, just north of Cascade Head. Lincoln City lies approximately 13 miles to the south. The main portion of the Nestucca Bay Refuge is located approximately 4 miles north of the study area (see Figure 1).

The climate of the study area is marine influenced with moderate temperatures, high humidity, and strong periodic winds. The average temperatures and rainfall for the project area are typical for Tillamook County which has an average temperature of 42.2 degrees in January and 58.2 degrees in July. Annual precipitation averages 90.9 inches, mostly occurring as rain in the winter. Predominate winds are on-shore from the Pacific Ocean. Strong southerly winds usually accompany winter storms.

## 3.3 BIOLOGICAL ENVIRONMENT

### 3.3.1 Land Cover

Based on recent core samples taken at several locations within the project area, Neskowin Marsh appears to have formed several thousand years ago when water began to pool behind a stable foredune developed along the beach, leading eventually to the well-developed marsh, peat bog, and forested wetland habitats present today.

Neskowin Marsh is a rare and outstanding example of a coastal bog ecosystem with exceptional biological value. Marsh, bog, forested wetlands, and upland meadows form a habitat complex important to a diverse and abundant group of plant and animal species. The marsh is a dynamic system that exhibits a natural pattern of habitat succession. Areas of open water are slowly being replaced by sphagnum bogs and forested wetlands, but the pace of habitat succession is highly variable, and is influenced by factors like flooding or draining, water quality, and sedimentation rates from adjacent uplands.

The general habitat and vegetation types associated with the study area include freshwater marsh, bog, forested lagg, upland meadow, upland shrub, upland forest, and dune.

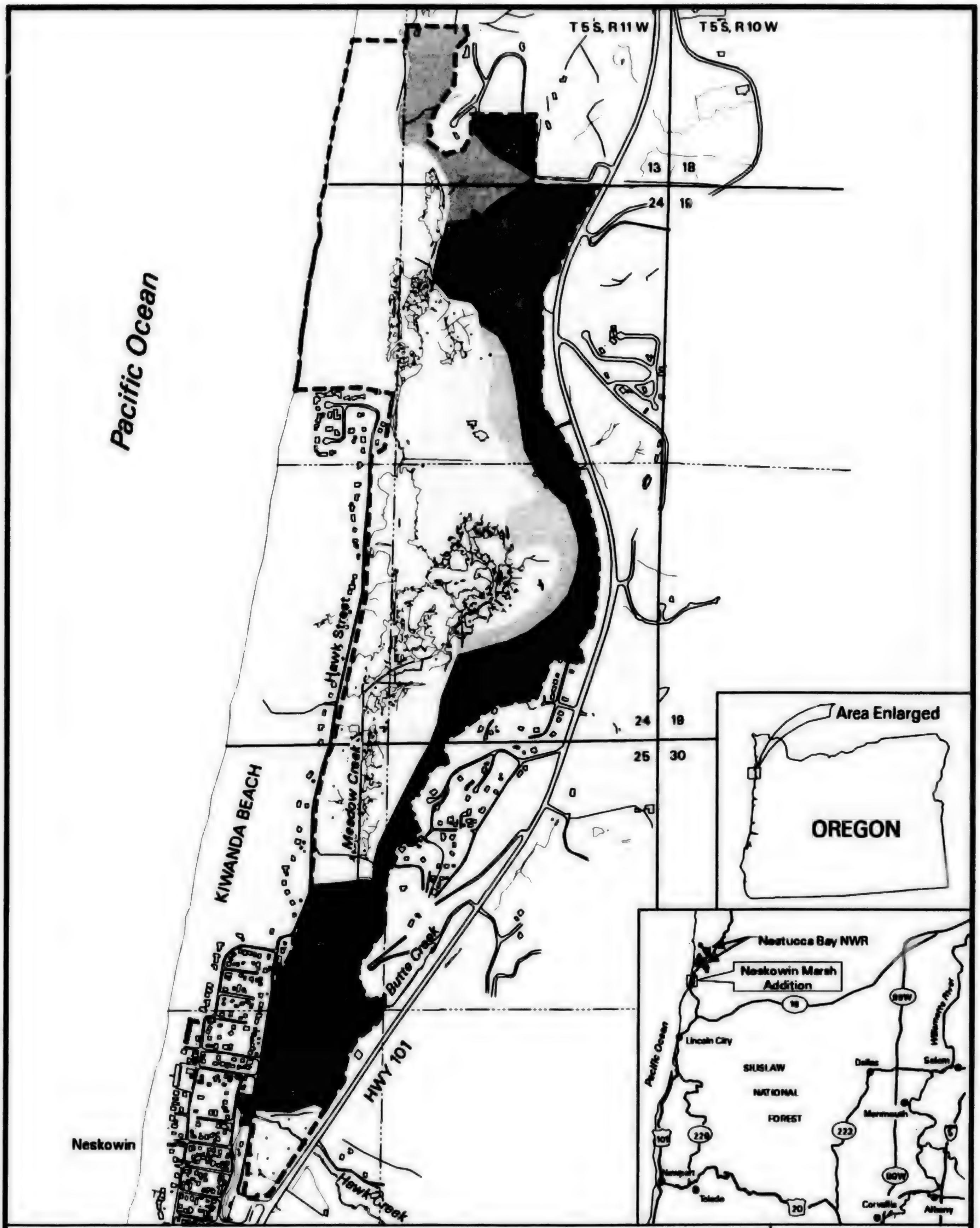

Figure 4 –LAND COVER
PROPOSED NESKOWIN MARSH UNIT ADDITION
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

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**Freshwater Marsh.** Freshwater marsh is a type of wetland that is associated with open standing water. Freshwater marsh makes up approximately 116 acres of the study area (see Figure 4). These areas consist of freshwater pools and ponds interspersed with emergent vegetation such as bulrush (*Scirpus spp.*), giant bur-reed (*Sparganium eurycarpum*), Douglas spirea (*Spirea douglasii*), and water parsley (*Oenanthe sarmentosa*). These areas of open water are remnants of what was once a much larger lake system that has been slowly filled by peat formation. Tannins leaching from the thick peat layers below the marsh acidify the water and cause it to appear tea-colored.

Freshwater marsh habitats form the core of the study area and support a diverse group of bird, mammal, and fish species, including the threatened coho salmon (*Oncorhynchus kisutch*). In the spring, thousands of amphibian egg masses appear in the marsh, indicating its importance as a breeding area for red-legged frogs (*Rana aurora*) and northwestern salamanders (*Ambystoma gracile*). The marsh also provides important breeding and wintering habitat for a variety of waterfowl including wood duck, mallard, American wigeon, and green-winged teal.

**Bog.** A peat bog is a type of wetland where sphagnum moss grows on top of water. Peat is formed from dead sphagnum moss. Over time, layers of peat covered by sphagnum moss are formed several feet above the surface of the water. Bogs make up an estimated 48 acres of the study area and are found just east of the freshwater marsh (see Figure 4). The three types of bog habitat found in the Neskowin Marsh study area include sedge fen, shrub carr, and sphagnum bog.

The sedge fen is distinguished from the other bog habitats because of the neutral pH of the water. The sedge fen bog is dominated by slough sedge (*Carex obnupta*) and Sitka sedge (*C. sitchensis*).

The shrub carr bog is dominated by western crabapple (*Pyrus fusca*), Trapper's tea (*Ledum glandulosum*), Hooker willow (*Salix hookeriana*), and stunted Sitka spruce (*Picea sitchensis*).

The rare and diverse sphagnum bog at Neskowin Marsh has been developing over a period of several thousand years. It contains the largest known occurrence of acid-forming mire known on the Oregon coast and supports the rare moss *Pohlia sphagnicola*, which occurs on the tops of sphagnum hummocks (The Nature Conservancy 1998). The sphagnum bog is dominated by sphagnum moss *(Sphagnum fuscum)*, bog cranberry (*Vaccinium oxycoccos*), round-leaved sundew (*Prosera rotundifolia*) and various small ground cover plants.

**Forested lagg.** A structurally diverse wetland known as a forested lagg occurs adjacent to the eastern edge of the bog habitats, between the bogs and the upland meadows and upland forests. Laggs are wetlands that form as a swamp-like moat around the outer edges of some bogs. The lagg's forest canopy is dominated by Sitka spruce (*Picea sitchensis*), western hemlock (*Tsuga heterophylla*), and red alder (*Alnus rubra*), with an understory of salal (*Gaultheria shallon*) and black twinberry (*Lonicera involucrata*). A ground cover composed primarily of bracken fern (*Pteridium aquilinum*), skunk cabbage (*Lysichiton americanum*), cow parsnip (*Heracleum lanatum*), water parsley (*Oenanthe sarmentosa*), and wild lily of the valley (*Maianthemum dilatatum*) is found.

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**Upland Meadow**. The upland meadow habitat is dominated by a variety of grasses, slough sedge, and trailing blackberry (*Rubus ursinus*). The habitat is found east of the forested lagg and continues to the north end of the marsh (see Figure 4).

**Upland Forest.** A forested buffer of Sitka spruce, western hemlock, red alder, and salal occurs along the eastern edge of the study area.

**Upland Shrub**. The upland shrub habitat includes species such as salal (*Gaultheria shallon*), thimbleberry (*Rubus parvifloris*), bracken fern (*Pteridium aquilinum*), nutka rose (*Rosa nutkana*), sword fern (*Polystichum munitum*), and black hawthorne (*Crataegus douglasii*).

**Dune**. A small area of undeveloped dune habitat is included in the project area. Located northwest of the marsh, the foredune and the area directly east of the foredune, known as a deflation plain margin, are dominated by non-native european beachgrass (*Ammophila arenaria*), dunegrass (*Elymus mollis*), shore pine (*Pinus contorta*), evergreen huckleberry (*Vaccinium ovatum*), salal, yarrow (*Achillea millefolium*), seaside tansy (*Tanacetum camphoratum*), and bracken fern. The existence of the marsh and bog habitats in the study area depends on the protection provided by these stable foredunes.

**Golf Course**. The Neskowin Beach golf course is located in the southern portion of the project area (see Figure 4). The golf course was built in the early 1930s by filling, ditching, and draining the south end of Neskowin Marsh. The golf course floods during fall, winter, and spring periods.

### 3.3.2 Water Resources

The three streams found in the study area are Meadow Creek, Butte Creek, and Hawk Creek (see Figure 4). Meadow Creek originates in Neskowin Marsh and flows south from the marsh through the Neskowin Beach Golf Course where it flows into Butte Creek near the south end of the golf course. Hawk Creek flows west through the Hawk Creek Golf Course, under Highway 101 where it empties into Butte Creek through the freshwater marsh, just south of the Neskowin Beach golf course.

Much of Meadow Creek has been ditched. During 1912 and 1913, the freshwater marsh was ditched and drained north of the golf course to grow cranberries commercially. This effort proved unsuccessful as a result of brackish water reaching the marsh in high tide events, killing the cranberries (Tillamook County 1981). The ditching that occurred can still be seen today on aerial photos, although it is less obvious in the northern portion of the marsh. Meadow Creek flows through the golf course in a ditch that continues to be maintained in an attempt to keep the golf course drained.

Tidal influence extends up Butte Creek to the tide gates located just south of the Neskowin Beach Golf Course Clubhouse.

### 3.3.3 Wildlife Resources

Neskowin Marsh supports a diversity of bird, mammal, and amphibian species. Waterfowl use the area during fall and spring migration. Species commonly observed include mallard (*Anas platyrynchos*), wood duck (*Aix sponsa*), American wigeon (*Anas americana*), northern pintail (*Anas acuta*), green-winged teal (*Anas crecca*), ring-necked duck (*Aytha collaris*), lesser scaup (*Aythya affinis*), and bufflehead (*Bucephala albeola*). Service biologists have documented that wood ducks and mallards breed at Neskowin Marsh.

A variety of waterbirds also use the study area. These include great blue heron (*Ardea herodias*), green heron (*Butorides striatus*), Virginia rail (*Rallus limicola*), sora (*Porzana carolina*), American coot (*Fulica americana*), and American bittern (*Botaurus lentiginosus*). Service biologists have documented that American bittern breed at Neskowin Marsh. This a rare occurrence along the Oregon coast. In addition, it is suspected that the American coot also breeds at Neskowin Marsh. If this is confirmed, it would be the only known breeding site for this species along the Oregon coast.

The study area also provides important habitat for neotropical migrant songbirds such as warblers, flycatchers, and thrushes. Local residents recorded 79 species of birds, many of them neotropical migrants, in the wetlands just south of the golf course. It would be expected that these same species would be found in the northern portion of the marsh as well.

In the spring, thousands of amphibian egg masses appear in the marsh, indicating its importance as a breeding area for red-legged frogs (*Rana aurora*) and northwestern salamanders (*Ambystoma gracile*). In addition to northwestern salamanders and red-legged frogs, rough-skinned newts (*Taricha granulosa*) were identified in surveys completed in the spring of 1999. Based on the wetland's size and natural characteristics, it is suspected that many more species of reptiles and amphibians would also occur.

Evidence of Roosevelt elk (*Cervus elaphus*), black bear (*Ursus americanus*), black-tailed deer (*Odocoileus hemionus*), beaver (*Procyon lotor*), raccoon (*Procyon lotor*), river otter (*Lutra canadensis*), muskrat (*Ondatra zibethica*), and nutria (*Myocastor coypus*) is abundant.

The American peregrine falcon (*Falco peregrinus anatum*) and the bald eagle (*Haliaetus leucocephalus*) nest in the vicinity of the study area. These birds use the area for hunting, foraging, and resting. The bald eagle is listed as threatened under the Endangered Species Act.

### 3.3.4 Fishery Resources

Preliminary surveys in the southern marsh have revealed substantial use of the area by fry and smolt-sized coho salmon (*Oncorhynchus kisutch*), listed as threatened under the Endangered Species Act, and cutthroat trout (*Oncorhynchus clarki*). The coho salmon and cutthroat trout use the marsh as off-channel overwintering habitat prior to their migration from fresh water to salt water. This means that these fish must navigate through the Neskowin Beach golf course to reach the marsh.

Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*) spawn in nearby Neskowin Creek, and may use Neskowin Marsh as well. In addition, fish surveys have identified western brook lamprey (*Lampetra richardsoni*), threespine stickleback (*Gasterosteus aculeatus*), and sculpin (*Cottus* spp.).

## 3.4 SOCIAL AND ECONOMIC ENVIRONMENT

### 3.4.1 Community of Neskowin

The study area is surrounded by the community of Neskowin. Neskowin is an unincorporated community located just north of Cascade Head and south of Nestucca Bay. In 1912, much of the property in Neskowin was bought by William Walton. Walton envisioned a family-oriented community so when he subdivided the land, parcels were sold with 50-year timed deed restrictions that did not allow commercial use of the properties. As a result, the core area of Neskowin is primarily single family residences with little commercial development (Tillamook County 1999).

Today, Neskowin is a cottage community with a large amount of vacation beach homes that have been passed down through generations. Commercial enterprises are still at a minimum and include such businesses as a motel, a restaurant, two golf courses, and a grocery store and deli. Tourism, primarily the cottage industry, makes a significant contribution to the local economy. The full-time residents of Neskowin typically commute outside of Neskowin for employment (Tillamook County 1999).

Neskowin has seen rapid growth in the last few years. Several subdivisions have been developed and several more are planned.

The Neskowin Beach Golf Course is located within the project area. This is one of two golf courses within the community. The golf course experiences localized flooding during the fall, winter, and spring periods, limiting the golfing season to 6 months or less a year. It was built in the 1930s and was the first golf course built along the Oregon coast (Tillamook County 1999).

### 3.4.2 Wildlife-Dependent Public Use Activities

There are six primary wildlife-dependent public-use activities that the Service manages, provided that they are compatible with the purposes for which the Refuge was established. These six wildlife-dependent public use activities are hunting, fishing, wildlife observation and photography, and environmental education and interpretation. These uses must receive enhanced consideration over other uses in refuge planning and management.

All the parcels within the study area are privately owned. Wildlife observation along the fringe of the study area is the only wildlife-dependent recreational activity that occurs. This use occurs primarily from the foot path that runs east to west along the northern edge of the Neskowin Beach Golf Course. Wildlife observation also takes place when waterfowl congregate on the golf course during spring, fall, and winter flooding. Although fishing occasionally occurs, it is not considered an owner-authorized existing wildlife-dependent public use. Local individuals have also documented isolated incidents of big-game hunting, waterfowl hunting, and canoeing in the study area, but these activities were not open to the general public.

### 3.4.3 Cultural Resources

The Oregon State Historic Preservation Office has records of two archaeological investigations undertaken immediately adjacent to the study area. The earliest (Follansbee 1978), indicated that a "village site" was reported by local residents near the confluence of Hawk and Butte creeks. However, the on-the-ground survey failed to find any cultural materials. A second investigator (Burtchard 1988) also conducted interviews of local residents, but could not find anyone who had found or heard of cultural materials from the reported site location. An additional survey near the confluence of the creeks was also negative. No other prehistoric sites have been reported in the analysis area.

The Neskowin Beach Golf Course was built in the 1930s and is the oldest golf course on the Oregon coast. This property has not been evaluated for eligibility to the National Register of Historic Places.

### 3.4.4 Land Use Zoning

All of the lands within the study area are privately owned. In April 1999, Tillamook County adopted the Neskowin Community Plan which established the land use zoning in the Neskowin Area. The zoning found within the project area includes Neskowin Rural Residential Zone (NeskRR), Neskowin Rural Residential-Planned Development Zone (Nesk RR-PD), Neskowin Recreation Management Zone (NeskRM), and Neskowin Commercial Zone (NeskC-1) (see Figure 5). In addition to the zoning designations, most of the study area has been designated by Tillamook County as significant wetlands which restricts development to, "only low intensity uses and developments such as hiking trails and platforms for wildlife viewing or similar types of educational, scientific or recreational uses...providing that such uses and developments will not act as a barrier to or result in major disturbances or displacement of fish or wildlife species" (Tillamook County 1981). Even though the Neskowin Beach Golf Course has been designated as a significant wetland, the ordinance specifically allows continuation of its use as a golf course.

The dune, upland meadow, and upland shrub habitats and some of the upland forest habitat are not designated as significant wetlands and are zoned NeskRR-PD (see Figure 5). This means that with approval from Tillamook County, housing developments could be built in these areas as long as they do not result in major impacts to the adjacent significant wetlands.

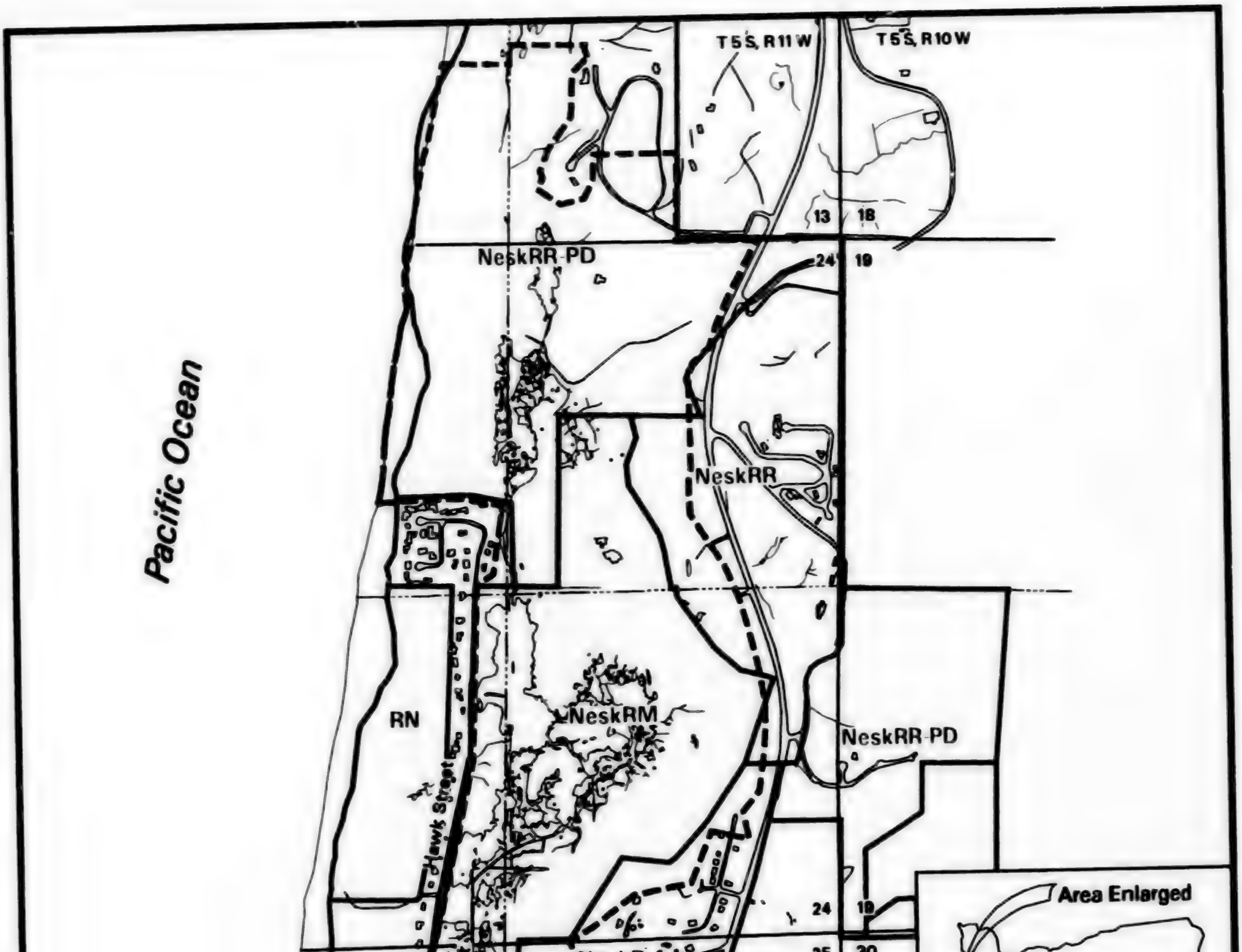

Figure 5 –TILLAMOOK COUNTY ZONING AND DESIGNATED SIGNIFICANT WETLANDS
PROPOSED NESKOWIN MARSH UNIT ADDITION
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

Study Area Boundary
☐ Designated Significant Wetlands
Zoning boundary

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# Chapter 4. Environmental Consequences

## 4.1 INTRODUCTION

This chapter assesses the environmental impacts that would be expected to occur with the implementation of each alternative. The effects of Alternatives 1 through 3 are analyzed using the biological, social, and economic factors that are relevant to the issues described in Chapter 1. The environmental consequences that would likely occur if the Service does not acquire any lands for the Neskowin Marsh Unit are described under the no action alternative, Alternative 1.

## 4.2 EFFECTS ON BIOLOGICAL ENVIRONMENT

### 4.2.1 Alternative 1 (No Action)

Implementation of this alternative would result in losing an opportunity to protect, restore, or manage freshwater marsh, forested lagg, upland meadow, upland forest, upland shrub, and dune habitats. It would also not protect rare, native wetland plant communities such as the peat bogs and longstem bulrush. Lands where these resources occur would remain in private ownership and would continue to receive varying degrees of protection. At least one tract within the study area is already under option for possible development.

Vegetation and land cover would be expected to remain similar to what is currently found unless the property owners decide to propose development on areas not designated as significant wetlands under Tillamook County zoning ordinances (see Figure 5).

The Neskowin Beach Golf Course would likely continue to be managed as a golf course. Meadow Creek and Butte Creek would continue to be maintained as ditches as they run through the golf course. Riparian vegetation may or may not be restored.

Alternative 1 would not allow for future freshwater marsh restoration by the Service. This would mean that native anadromous fish species, such as the threatened coho salmon, would not benefit from potential habitat restoration. Although overwintering habitat in the upper marsh would likely remain intact, the fish would still have to migrate through the golf course.

Alternative 1 would not contribute to the protection or improvement of habitat for migratory waterfowl, shorebirds, wading birds, and songbirds or mammals, amphibians, and reptiles. Protection of rare breeding habitat for the Amercian bittern and potentially the American coot would be at the discretion of the landowner and would not be guaranteed in perpetuity.

### 4.2.2 Alternative 2 (320-Acre Addition)

Alternative 2 would protect and conserve habitats for listed species, migratory birds, amphibians, reptiles, mammals, and rare plant communities. Alternative 2 would provide the Service with the opportunity to protect and manage the largest existing unprotected freshwater marsh remaining along the Oregon Coast. Neskowin Marsh contains rare and unique peat bog and longstem bulrush plant communities that would be protected in perpetuity under this alternative. In addition to protecting the existing marsh complex, this alternative would protect the surrounding uplands which would ensure that the integrity of the marsh is not impacted from surrounding upland development. This would protect habitat for anadromous fish, including the threatened coho salmon, and habitat for migratory waterfowl, wading birds, shorebirds, and songbirds. This would also protect habitat for mammals, amphibians, and reptiles.

### 4.2.3 Alternative 3- The Preferred Alternative (375-Acre Addition)

Alternative 3, the preferred alternative, would provide the Service with the opportunity to protect and manage about 375 acres. Compared to alternative 2, this Alternative would include the Neskowin Beach Golf Course and an additional 7 acres of freshwater wetlands just south of the golf course. For this alternative, the biological effects for the project area north of the Neskowin Beach Golf Course are the same as described under Alternative 2.

Alternative 3 would conserve and protect the entire marsh complex and would provide an opportunity for future restoration of the lower half of the marsh back to freshwater wetlands. This would improve habitat for anadromous fish, including the coho salmon, and would improve conditions for migration into the upper end of the marsh.

The opportunity to restore wetlands in the lower half of the marsh would also improve habitat for migratory birds. The golf course currently receives use from migratory birds during seasonal flooding events. The birds are typically found loafing and foraging. The habitat is somewhat limited however, and focuses on species that use short-grass habitat. The opportunity to restore freshwater wetlands would also allow for management of more diverse species of migratory birds.

## 4.3 EFFECTS ON SOCIAL AND ECONOMIC ENVIRONMENT

### 4.3.1 Alternative 1 (No Action)

Alternative 1 would have no effect on the current Tillamook County property tax revenue. Payments of property taxes by private landowners would remain unchanged.

Tillamook County land use zoning would continue to prohibit development of areas designated as significant wetlands (see Figure 5). However, zoning would continue to allow the development of the uplands immediately adjacent to the marsh, potentially threatening the integrity of the marsh.

Use of private lands would continue to be controlled by the landowners. It would be expected that little to no wildlife-dependent recreational uses would be allowed or encouraged.

### 4.3.2 Alternative 2 (320-Acre Addition)

Tillamook County would not receive revenues from property taxes on acquired Refuge lands under Alternative 2 because Federal lands are not subject to state or local taxes, there are provisions however, under the Refuge Revenue Sharing Act of 1953, as amended, that authorize Congress to appropriate payments to counties annually through the Service for acquired Refuge lands. Congress can authorize this full amount or a percentage of the full amount annually. The annual refuge revenue sharing payment to the counties is based on the greatest of 75 cents per acre, three-fourths of one percent of the appraised value of the land, or 25 percent of net receipts of revenue produced from the land.

Refuge revenue sharing payments often equal or exceed the amount that would have been collected by the county from taxes on private property. The Service paid $4,296 to Tillamook County in revenue sharing for the 457 acres owned in fee title for the Nestucca Bay Refuge in 1999. This equals just over 60 percent of the full payment. Over the last 10 years, annual payments to the counties nation-wide have averaged 76.5 percent. The receipts received by Tillamook County from the Service as provided for under the Refuge Revenue Sharing Act are expected to increase as more land is acquired.

Local jurisdictions would continue to be responsible for land-use designations and zoning. As private lands are acquired by the Service, these lands would be managed in accordance with the National Wildlife Refuge System Administration Act as amended by the National Wildlife Refuge System Improvement Act of 1997, and other federal laws and regulations described in Chapter 1. Lands that could be developed into housing along the fringe of the marsh would be protected from development in perpetuity should they be acquired by the Service.

Under this alternative, the Service would protect wildlife resources and their habitats while providing compatible public use opportunities such as wildlife observation and photography, and environmental education and interpretation (see Conceptual Management Plan). It is the Service's hope that volunteer conservation groups and local educational institutions would become active in habitat management, and education programs under this alternative.

Acquisition of property would bring any cultural resources under the protection of Federal historic preservation laws, the most important being the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act (ARPA) and the Native American Graves Protection and Repatriation Act (NAGPRA). Prior to any land modifying activities, cultural resources would be considered in the planning process as required by the NHPA.

### 4.3.3 Alternative 3, The Preferred Alternative (375-Acre Addition)

As with Alternative 2, Tillamook County would not receive revenues from property taxes on acquired Refuge lands because Federal lands are not subject to State or local taxes. There are provisions, however, under the Refuge Revenue Sharing Act that authorize Congress to appropriate payments to counties annually through the Service for acquired Refuge lands. Refuge revenue sharing payments often equal or exceed the amount that would have been collected by the counties from taxes on private property. The Service paid $4,296 to Tillamook County in revenue sharing for the 457 acres owned in fee title for the Nestucca Bay Refuge in 1999. The receipts received by Tillamook County from the Service through the Refuge Revenue Sharing Act are expected to increase as more land is acquired.

The Neskowin Beach Golf Course is included under this alternative. If acquired, it would no longer be operated as a golf course. This change in land use is not contrary to Tillamook County zoning ordinances (G. Veret, personal communication). The Golf Course is operated by the owner, with an occasional summer employees hired, so there would be little impact to the local community as a result of lost job opportunities.

Local golfers who typically use the Neskowin Beach Golf Course would be displaced across Highway 101 to the Hawk Creek Course, less than one mile away, or would be required to drive approximately 12 miles south to golf courses in Lincoln City. Because the Neskowin Beach Golf Course is only open for a limited period during the drier months of the year, and because of the opportunity to have a similar golfing experience within less than a mile, the economic impacts of not operating the Neskowin Beach Golf Course within the community would be negligible.

Any economic loss would be somewhat offset by increased attraction to the area by the public seeking wildlife-dependent public use opportunities. Although it would be difficult to estimate the dollar amount, this attraction would bring revenue to the local community and Tillamook County through increased tourism dollars.

Negative social impacts would be felt the greatest by local golfers and visiting golfers who have traditionally vacationed in Neskowin, either renting or owning vacation homes. Golfers enjoy the ability to walk to the course, gather at the clubhouse, and enjoy the tradition of golfing on the oldest course built on the Oregon Coast.

Golfing at the Neskowin Beach Golf Course has been available through many generations and some feel it is part of the culture of Neskowin. However, other individuals in Neskowin value the natural setting and beauty of Neskowin. This is highlighted in the Neskowin Values Statement as described in the Neskowin Community Plan. It states, "...Neskowin citizens want Neskowin to be...a place where the environment and beauty of natural setting is prized." Local residents and tourists that are attracted to the quiet, natural setting of the community would benefit from protection and potential restoration of the area to freshwater wetlands. Improved opportunities for wildlife viewing and photography, and environmental interpretation and education would be available (see Conceptual Management Plan).

Acquisition of property would bring any cultural resources under the protection of Federal historic preservation laws, the most important being the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act (ARPA) and the Native American Graves Protection and Repatriation Act (NAGPRA). Prior to any land modifying activities, cultural resources would be considered in the planning process as required by the NHPA. The Neskowin Beach Golf Course would be evaluated for eligibility to the National Register of Historic Places.

## 4.4 UNAVOIDABLE ADVERSE IMPACTS

No direct or indirect unavoidable adverse impacts to the environment would result from the selection of Alternatives 2 or 3. The identification of an approved boundary for the Refuge addition would not result in unavoidable adverse impacts on the biological, social, or economic environment. The selection of an approved Refuge boundary does not, by itself, affect any aspect of land ownership or values. Once land is acquired, the Service would prevent incremental adverse impacts, such as degradation and loss of habitat over time, to the lands and their associated native plants and animals.

## 4.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

There would be no irreversible or irretrievable commitments of resources (see Chapter 3) associated with the selection of an approved Refuge addition boundary under Alternatives 2 or 3. Under Alternative 1 (No Action), if habitats within and surrounding Neskowin Marsh are not protected and restored, some plant and animal species could be extirpated over time, causing an irreversible and irretrievable loss.

## 4.6 SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

The proposed Refuge Unit addition would help maintain and restore long-term biological productivity of the complex freshwater wetlands ecosystem that is known as Neskowin Marsh. With acquisition under Alternatives 2 and 3, the habitat would be protected and managed as a permanent part of the National Wildlife Refuge System that is exclusively dedicated to maintaining the long-term productivity of unique and rare freshwater marsh habitats for fish and wildlife. The local short-term uses of the environment following acquisition and management of the proposed Refuge Unit could include freshwater marsh restoration, and the development of administrative and public use facilities. The resulting long-term productivity would include increased protection and management of migratory waterfowl, wading birds, shorebirds, migratory songbirds, threatened and endangered fish and wildlife species, rare plant communities, and other species of fish and wildlife. This protection and management could result in population increases for these species. The public would also gain long-term opportunities for compatible wildlife-dependent recreation and education and enhanced quality of life.

## 4.7 CUMULATIVE IMPACTS

The proposed Neskowin Marsh Unit addition to Nestucca Bay National Wildlife Refuge would contribute to the long-term, positive cumulative impacts on wildlife habitats within the community of Neskowin. The protection of wildlife habitats within the addition would represent a cumulative benefit to the long-term conservation of endangered and threatened species and biological diversity. The proposed Refuge addition would protect and restore native habitats and conserve important populations of endangered and threatened species and many other native plants and animals.

# Chapter 5. Coordination, Consultation, and Compliance

## 5.1 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

The proposal to expand the Nestucca Bay Refuge boundary to include the Neskowin Marsh National Wildlife Refuge has been discussed with landowners, conservation organizations, Federal, State, County, and city governments, and other interested groups and individuals. The Service consulted with agencies and organizations such as The Nature Conservancy, Tillamook County Board of Commissioners, the Tillamook County Department of Community Development, the Confederated Tribes of the Grand Ronde, the Confederated Tribes of the Siletz Indians, the Oregon Department of Fish and Wildlife, the National Marine Fisheries Service, and several prominent members of the Neskowin community.

The Service has invited and continues to encourage public participation through a public involvement process consisting of public meetings and project planning updates. Since the fall of 1998, the Service has held a public scoping meeting and has met with private landowners. The Service has also prepared and mailed several *Planning Updates* for the proposed Neskowin Marsh Unit to keep interested agencies, organizations, and people informed of the progress with this project. Articles written by the media have also contributed to public awareness of the proposed Refuge expansion.

## 5.2 NATIONAL ENVIRONMENTAL POLICY ACT

As a Federal agency, the Service must comply with provision of the National Environmental Policy Act (NEPA). An environmental assessment (EA) is required under NEPA to evaluate reasonable alternatives that will meet stated objectives, and to assess th possible environmental, social, and economic impacts to the human environment. The EA serves as the basis for determining whether implementation of the proposed action would constitute a major Federal action significantly affecting the quality of the human environment. The EA facilitates the involvement of government agencies and the public in the decision making process.

## 5.3 OTHER FEDERAL LAWS, REGULATIONS, AND EXECUTIVE ORDERS

In undertaking the proposed action, the Service would comply with a number of Federal laws, regulations, and executive orders. Some of these laws include the Coastal Zone Management Act, the Endangered Species Act, the National Historic Preservation Act, the Uniform Relocation Assistance and Real Property Acquisition Policies Act, Intergovernmental Review of Federal Programs (Executive Order 12372), Protection of Wetlands (Executive Order 11990), Floodplain Management (Executive Order 11988), and Hazardous Materials Determinations (Secretarial Order 3127).

## 5.4 DISTRIBUTION AND AVAILABILITY

The Environmental Assessment, Land Protection Plan, and Conceptual Management Plan were sent to many agencies, organizations, groups, and individuals (see Appendix A). Additional copies of these documents are available from the U.S. Fish and Wildlife Service, Division of Refuge Planning, 911 NE 11th Avenue, Portland, Oregon 97232-4181, (800-662-8933) and from the Oregon Coastal Field Office, 2127 SE OSU Drive, Newport, Oregon, 97365, (541-867-4550). The documents are also available on the World Wide Web at the following address: *http://www.r1.fws.gov/planning/plnhome.html.*

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# APPENDIX A
## Distribution List for Environmental Assessment

### STATE AND FEDERAL CONGRESSIONAL DELEGATION

U.S. Senator Gary Smith
U.S. Senator Ron Wyden
U.S. Congresswoman Darlene Hooley
State Senator Joan Dukes
State Senator Gary George
State Representative Elaine Hopson
State Representative Terry Thompson

### FEDERAL AGENCIES

**Department of Agriculture**
Natural Resources Conservation Service
Forest Service

**Department of Commerce**
National Marine Fisheries Service

**Department of Defense**
Army Corps of Engineers

**Department of the Interior**
Bureau of Land Management
U.S. Geological Survey

**Department of Transportation**
Federal Highway Administration

**Environmental Protection Agency**

### STATE AGENCIES

Governor John A. Kitzhaber, M.D.
Oregon Department of Fish and Wildlife
Oregon Division of State Lands
Oregon Department of Geology and Mineral Industries
Oregon Department of Transportation
Oregon Department of Environmental Quality
Oregon Department of Land Conservation and Development
Oregon Water Resources Department
Oregon Parks and Recreation
State Historic Preservation Office

## NATIVE AMERICAN TRIBES

The Confederated Tribes of the Grande Ronde
The Confederated Tribes of Siletz Indians

## CITY AND COUNTY GOVERNMENT AND AGENCIES

Tillamook County Board of Commissioners
Tillamook County Community Development
Tillamook County Soil and Water Conservation District

## LIBRARIES

Driftwood Library
Tillamook County Library
Tillamook County Library, Pacific City Branch

## LANDOWNERS, PRIVATE INDIVIDUALS AND GROUPS

# APPENDIX B
## Glossary

**Acquisition**

The method by which land is brought into the National Wildlife Refuge System. Types of acquisition agreements include sale, easement, lease, or in the case of a State or Federal agency, cooperative agreement.

**Alternative**

A reasonable way to fix the identified problem, satisfy the stated need, or take advantage of the stated opportunity.

**Anadromous fish**

Migratory fish species that spend part of their life cycle in fresh water (streams) and part of their life cycle in salt water (ocean).

**Approved refuge boundary**

A project boundary that the Regional Director of the U.S. Fish and Wildlife Service approves upon completion of the planning and environmental compliance process. An approved refuge boundary only designates those lands that the Fish and Wildlife Service has authority to acquire and/or manage through various agreements. Approval of a refuge boundary does not grant the Fish and Wildlife Service jurisdiction or control over lands within the boundary, and it does not make lands within the refuge boundary part of the National Wildlife Refuge System. Lands do not become part of the National Wildlife Refuge System until they are purchased or are placed under an agreement that provides for management as part of the Refuge System.

**Biological diversity or biodiversity**

The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they interact.

**Bog**

See Peat Bog.

**Compatible use**

A use that, in the sound professional judgment of the Refuge Manager, will not materially interfere with or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposes of a refuge.

**Comprehensive Conservation Plan (CCP)**

A document that identifies the management actions that will occur on a refuge. The CCP provides a description of the desired future conditions and long-range guidance for the refuge. CCPs establish management direction to achieve refuge purposes.

**Conceptual Management Plan**

A document that presents a broad overview of the Service's proposed management approach to lands included within the National Wildlife Refuge System. Management actions are finalized only after additional planning and public input, generally in the form of a CCP.

**Conservation easement**

A legal document that conveys (transfers) specific land-use rights to a secondary party for a specified length of time. For example, a conservation easement granted in perpetuity may convey development and management rights to the Service, while providing for continued use by the landowner for compatible purposes.

**Cooperative agreement**

A habitat protection action in which no property rights are acquired. An agreement is usually long-term and can be modified by either party. Lands under a cooperative agreement do not necessarily become part of the National Wildlife Refuge System.

**Donation of land**

A citizen or group may wish to give land or interests in land to the Service for the benefit of wildlife. Aside from the cost factor, these acquisitions are no different than any other means of land acquisition. Gifts and donations have the same planning requirements as purchases.

**Eminent domain**

The authority given to Federal agencies to condemn land for the public good. Although it is Service policy to purchase land only from willing sellers, the Service does have this authority, however, rarely uses it.

**Ecosystem**

A dynamic and interrelating complex of plant and animal communities and their associated nonliving environments.

**Endangered species**

A species officially recognized by Federal and State agencies to be in immediate danger of extinction throughout all or a significant portion of its range.

**Environmental Assessment (EA)**

A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action, offers alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or Finding of No Significant Impact.

**Fee title**

The acquisition of most or all of the rights and interest to a tract of land.

**Finding of No Significant Impact (FONSI)**

An agency decision prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, to proceed with a proposed action. The FONSI briefly describes the Federal action to take place and presents why the action will have no significant effect on the human environment.

**Forage**

The entire process of a wild animal finding and eating food. Foraging can include activities such as searching for, locating, digging, gathering, chasing, capturing, and carrying food back to a nest, den, or different location to eat.

**Forested Lagg**

A structurally diverse wetland that forms as a swamp-like moat around the outer edges of some bogs.

**Freshwater Marsh**

Freshwater marsh is a type of wetland that is associated with open standing water.

**Habitat**

The environment in which a plant or animal or a population of plants or animals lives (includes vegetation, soil, water, and other factors).

**Land cover**

The type of feature present on the surface of the earth. Urban buildings, lakes, maple trees, and glacial ice are all examples of land cover types.

**Land Protection Plan (LPP)**

A document that identifies and prioritizes lands for potential willing-seller acquisition, and also describes other methods of providing protection. Landowners within project boundaries will find this document, which is released with the environmental assessments, most useful.

**National Environmental Policy Act (NEPA) (4.2 USC S4321 et seq.)**

The law that requires a Federal agency to (1) consider every significant aspect of the environmental impact of a proposed action, (2) involve the public in its decision-making process when considering environmental concerns, (3) use a systematic, interdisciplinary approach to decision-making, and (4) consider a reasonable range of alternatives, in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment.

**National Wildlife Refuge System**

A national network of lands and waters administered by the U.S. Fish and Wildlife Service for the conservation and management of fish, wildlife, and plants of the United States for the benefit of present and future Americans.

**Peat Bog**

A bog is a type of wetland where sphagnum moss grows on top of water. Peat is formed from dead sphagnum moss. Over time, layers of peat covered by sphagnum moss are formed several feet above the surface of the water.

**Public involvement**

The process by which interested and affected individuals, organizations, agencies, and governmental entities participate in the planning and decision-making process.

**Refuge purposes**

The purposes specified in or derived from the document that created the refuge. Types of documents include the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.

**Step-down management plans**

Plans that describe management strategies and implementation schedules. Step-down management plans deal with specific management subjects such as crop lands, wilderness, and fire.

**Study area**

The limits of the area analyzed in the environmental assessment as shown on Figure 1, Chapter 1.

**Threatened species**

Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Wildlife-dependent recreation**

A legal use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.

**Uniform Relocation Assistance and Real Property Act**

A law (Public Law 91-646, as amended) that provides certain benefits and payments to persons displaced as a result of Service acquisition of land.

U.S. Department of the Interior
Fish and Wildlife Service

# LAND PROTECTION PLAN

## *Neskowin Marsh Unit Addition*
*Nestucca Bay National Wildlife Refuge*
*Tillamook County, Oregon*

Prepared By:

**U.S. Fish and Wildlife Service**
**Region 1**
**Portland, Oregon**

U.S. Fish and Wildlife Service
2127 SE OSU Drive
Newport, Oregon 97365

April 2000

# Land Protection Plan

## Neskowin Marsh Unit Addition
Nestucca Bay National Wildlife Refuge
Pacific County, Washington

Prepared by:

**U.S. Fish and Wildlife Service**
**Region 1**
**Portland, Oregon**

U.S. Fish and Wildlife Service
2127 SE OSU Drive
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April 2000

Approved by:

| | |
|---|---|
| Regional Director<br>U.S. Fish and Wildlife Service | Date |

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**Tillamook County, Oregon**

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# Land Protection Plan
## Neskowin Marsh Unit Addition
## Nestucca Bay National Wildlife Refuge

Tillamook County, Oregon
April 2000

### 1.1 INTRODUCTION

This Land Protection Plan describes the habitat protection methods that could take place for lands within Alternative 3 (Preferred Alternative) described in the Environmental Assessment (EA) for the Neskowin Marsh Unit Addition to Nestucca Bay National Wildlife Refuge (Refuge). The plan also includes a priority listing of private lands to be considered for acquisition within the proposed boundary.

### 1.2 PROJECT DESCRIPTION

The Nestucca Bay Refuge is located in southern Tillamook County along the northern Oregon Coast. The Refuge was established in 1991 to (1) protect wintering habitat for Aleutian Canada geese listed as threatened under the Endangered Species Act, (2) protect wintering habitat for dusky Canada geese, and (3) protect diverse coastal wetlands habitats and upland habitat buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife. The current approved Refuge boundary is approximately 3,060 acres. The acquisition program is ongoing at the Nestucca Bay Refuge and the Service has acquired approximately 524 acres in fee title to date.

The U.S. Fish and Wildlife Service (Service) is proposing to protect fish and wildlife habitat by establishing the Neskowin Marsh Unit of the Nestucca Bay National Wildlife Refuge in southern Tillamook County. The approved Refuge boundary for the Neskowin Marsh Unit would allow the Service to negotiate with willing participants within the approved boundary to acquire lands or interests in land and water. Lands or interests in land acquired by the Service, would be managed as a part of the National Wildlife Refuge System.

Neskowin Marsh is the largest unprotected freshwater marsh remaining along the Oregon Coast. It is located in a mile-long trough behind the sand dunes along Kiwanda Beach. Neskowin Marsh appears to have formed several thousand years ago when water began to pool behind a stable foredune along the beach, leading eventually to the well-developed marsh, peat bog, and forested wetland habitats that are currently found.

Neskowin Marsh is a rare and outstanding example of a coastal bog ecosystem with exceptional biological value. The marsh, bogs, forested wetlands, upland meadows, and adjacent forested uplands form a habitat complex important to migratory songbirds, waterfowl, wading birds, mammals, reptiles, amphibians, and anadromous fish.

Early in the century, marsh was ditched in an attempt to drain the area and the marsh's southern end was cleared in an attempt to commercially grow cranberries. The area now contains one of the largest bulrush stands known to occur along the Oregon Coast. The extreme southern end of the marsh was drained and converted to a golf course around the 1930s.

The American peregrine falcon, recently removed from listing under the Endangered Species Act, and the threatened bald eagle nest in the vicinity of Neskowin Marsh. These birds also use the wetlands and surrounding upland habitat for foraging and resting.

Western lamprey and cutthroat trout have been observed in Neskowin Marsh. In addition, Neskowin Marsh is used as overwintering habitat by juvenile coho salmon before they migrate to the ocean. Coho salmon are listed as threatened under the Endangered Species Act. It is also suspected that juvenile chinook salmon, and steelhead occur in Neskowin Marsh.

## 1.3 THREAT TO OR STATUS OF THE RESOURCE

The Oregon Coast is experiencing rapid growth in residential, resort, and recreational development. Many of these developments threaten the integrity of coastal ecosystems that support existing fish and wildlife populations. This type of growth is occurring in and adjacent to the community of Neskowin. For example, a new sewage treatment plant was completed in Neskowin in 1995 as a result of expanding populations. In addition, there are currently four new housing developments adjacent to or overlooking Neskowin Marsh and one tract in the study area is under option for potential development. Neskowin Marsh is currently privately owned and further development in and around Neskowin Marsh could severely impact the unique habitat the area currently provides.

## 1.4 PURPOSE OF THE PROPOSED EXPANSION

The Service is proposing the addition of the Neskowin Marsh Unit to Nestucca Bay Refuge as a response to an opportunity to acquire property from willing sellers in order to conserve the Neskowin Marsh complex and associated rare coastal bog ecosystem, and assist in the recovery of species that are Federally listed as threatened and endangered.

The purpose of proposing the addition of the Neskowin Marsh Unit to the National Wildlife Refuge System is to provide the Service with an opportunity to (1) protect key habitats for threatened and endangered species such as the coho salmon, (2) protect freshwater wetlands, including a rare and unique coastal bog ecosystem, (3) provide a diversity of habitats for mammals, amphibians, reptiles, and migratory waterfowl, shorebirds, wading birds, and songbirds, and (4) develop compatible wildlife-dependent recreational activities in partnership with the local community.

The authorities for the acquisition are the Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742(a)-754), Endangered Species Act of 1973, as amended (16 U.S.C. 1532-1544, 87 Stat. 884), Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d) and Refuge Recreation Act of 1962, as amended (16 U.S.C. 460k-460k-4). The Endangered Species Act of 1973, Fish and

Wildlife Act of 1956, and Refuge Recreation Act of 1962 authorize the Service to use funds made available under the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-4601-11) to acquire lands, waters, or interests therein for fish and wildlife conservation purposes. Federal monies used to acquire private lands through the Land and Water Conservation Fund are derived primarily from oil and gas leases on the outer continental shelf, excess motorboat fuel tax revenues, and the sale of surplus Federal property.

## 1.5 LAND PROTECTION ALTERNATIVES

### 1.5.1 Willing Seller Policy

It is the policy of the Service to acquire areas from willing participants under general authorities such as the Migratory Bird Conservation Act, the Endangered Species Act, the Fish and Wildlife Act of 1956, and the Emergency Wetland Resources Act. Landowners within the approved Refuge boundary who do not wish to sell their property or any other interest in their property are under no obligation to negotiate with or sell to the Service. In all acquisitions, the Service is required by law to offer 100 percent of fair market value, as determined by an approved appraisal that meets professional standards and Federal requirements.

The Service, like other Federal agencies, has the power of eminent domain. Eminent domain allows the use of condemnation to acquire lands and other interest in lands, such as easements, for the public good. The Service very rarely uses this power. The Service normally acquires land from willing participants and is not often compelled to buy specific habitats within a rigid time frame.

Under the Uniform Relocation Assistance and Real Property Acquisition Policies Act, landowners who sell their property to the Service may be eligible for the following benefits and payments.

- Reimbursement of reasonable moving and related expenses or certain substitute payments.
- Replacement housing payments under certain conditions.
- Relocation assistance services to help locate replacement housing, farmland, or business site.
- Reimbursement of certain necessary and reasonable expenses incurred in s[illegible]al property to the Federal Government.

### 1.5.2 Habitat Protection Methods

A variety of habitat protection methods can be used to preserve fish and wildlife habitat. The actual method selected for any individual parcel will depend upon the needs and desires of the landowner and what is agreed to by the Service. If a mutual agreement cannot be reached, the landowner retains full use, control, and responsibility for the property.
***Cooperative Agreements.*** The Service can enter into cooperative agreements with landowners to improve wildlife habitat management. Cooperative agreements may specify shared responsibilities, or a transfer of funds from the Service to another entity or vice-versa for management purposes. Cooperative agreements could be applied to land under any type of ownership in the study area.

***Conservation Easements.*** Conservation easements are a type of refuge acquisition where the landowner permanently transfers some, but not all, property rights to the Service as specified by mutual agreement. Under a conservation easement, a landowner could agree not to engage in activities damaging to wildlife habitat resources, and the Service could manage the land for wildlife. The Service can acquire easements through purchase, donation, or exchange, depending on the terms of the easement. The property owner pays any applicable property taxes. The Service could negotiate conservation easements on land under any type of ownership.

***Fee Title Acquisition.*** A fee title interest is normally acquired when (1) the fish and wildlife resources on a piece of property require permanent protection that is not otherwise available, (2) the property is needed for development associated with public use, (3) a pending land use could otherwise harm wildlife habitats, or (4) purchase is the most practical and economical way to assemble small tracts into a manageable unit. Fee title acquisition transfers any property rights owned by the landowner, including mineral and water rights, to the Federal government. A fee title interest may be acquired by purchase, donation, or exchange.

## 1.6 LAND PROTECTION PRIORITIES

Table 1 lists the lands within the preferred expansion boundary and assigns priority for land protection, tract numbers, ownership, acreage, and possible means of resource protection. Landowners within the proposed Refuge boundary may or may not wish to participate in the Service's habitat protection objectives, or may not wish to divest themselves from their land management responsibilities. Based on this, the final configuration of the acquired lands is impossible to predict. But because the parcels have been identified and the potential effects of converting those lands to refuge status have been assessed in the EA, the delineated proposed expansion boundary will provide the Service with future habitat protection options if willing sellers and participants and available funds present themselves in the future.

## 1.7 COORDINATION

The Service worked with a variety of interested parties to identify issues and concerns associated with the proposed Refuge expansion. These interested parties included members of the public, interested private groups, elected officials, and State, Federal, Tribal, and local government agencies. The Service's public involvement activities included hosting a public scoping meeting, developing and mailing planning updates, requesting information, undertaking consultations, and responding to inquiries. The Service provided information about the proposal to the media and other interested or affected parties throughout the public scoping period.

The Service held a public meeting on October 17, 1998, at the Neskowin Community Fire Hall. The meeting was publicized in the planning update and news releases to area newspapers.

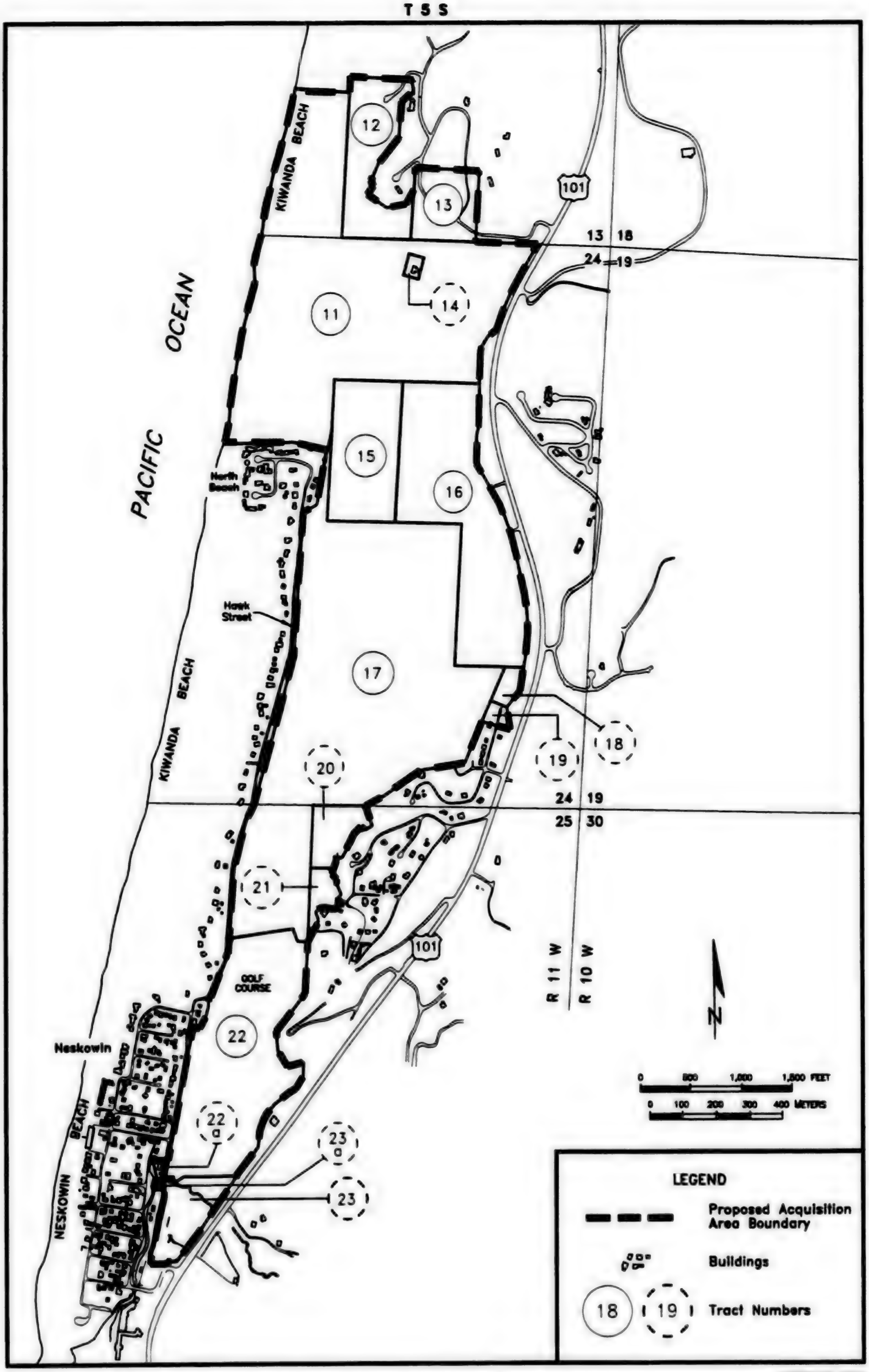
## 1.8 SOCIOCULTURAL IMPACTS

The Neskowin Beach Golf Course is included within this Refuge expansion. Although approval of this expansion would only allow the Service to negotiate with willing sellers within the approved Refuge boundary, the intent is to restore the Golf Course back to freshwater wetlands. Because the Neskowin Beach Golf Course is only open for a limited period during the drier months of the year, and because of the opportunity to have a similar golfing experience within less than a mile, the economic impacts of not operating the Neskowin Beach Golf Course within the community would be negligible. In addition, any economic loss would be somewhat offset by increased attraction to the area by the public seeking wildlife-dependent public use opportunities. Although it would be difficult to estimate the dollar amount, this attraction would bring revenue to the local community and Tillamook County through increased tourism dollars.

Some people do not support the inclusion of the golf course because they believe that golfing at the Neskowin Beach Golf Course is a traditional use of the area and restoration of the golf course to freshwater wetlands would change the character of the community of Neskowin. Others in the community have expressed a desire for the Service to acquire the golf course and to restore the area to freshwater wetlands to protect valuable fish and wildlife habitat, and to improve the natural setting of the community.

## Table 1: Land Protection Priorities

| Tract | Priority | Owner | Approximate Acres | Possible Method of Protection |
|---|---|---|---|---|
| 11 | 1 | Octagon Development Corporation | 93 | Fee Title |
| 12 | 3 | Sylvanus Smith | 16 | Fee Title, Conservation Easement |
| 13 | 3 | Gwendolyn Scherzinger and Sylvanus Smith | 10 | Fee Title, Conservation Easement |
| 14 | 3 | Clayton McMinimee | 1 | Fee Title, Conservation Easement |
| 15 | 1 | Merrill Twining | 13 | Fee Title, Conservation Easement |
| 16 | 1 | The Nature Conservancy | 63 | Fee Title, Conservation Easement, Cooperative Agreement |
| 17 | 1 | The Nature Conservancy | 112 | Fee Title, Conservation Easement, Cooperative Agreement |
| 18 | 2 | Gale Southwell, Trustee | 2 | Fee Title, Conservation Easement |
| 19 | 2 | Wendy Schoen and Gale Southwell, Trustee | 1 | Fee Title, Conservation Easement |
| 20 | 2 | Richard Hill | 6 | Fee Title, Conservation Easement |
| 21 | 2 | Kerri and William Martin | 3 | Fee Title, Conservation Easement |
| 22 | 2 | Loretta and William Clark, Jr. | 48 | Fee Title |
| 22a | 2 | Loretta and William Clark, Jr. | 0.1 | Fee Title |
| 23 | 3 | The Wetlands Conservancy | 7 | Fee Title Fee Title, Conservation Easement, Cooperative Agreement |
| 23a | 3 | The Wetlands Conservancy | 0.1 | Fee Title Fee Title, Conservation Easement, Cooperative Agreement |
|  |  |  | 375 acres |  |



FEBRUARY 2000

PROPOSED NESKOWIN MARSH UNIT ADDITION
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

*Figure 1. TRACT MAP*

U.S. Department of the Interior
Fish and Wildlife Service

# CONCEPTUAL MANAGEMENT PLAN

## *Neskowin Marsh Unit Addition*

*Nestucca Bay National Wildlife Refuge*
*Tillamook County, Oregon*

Prepared By:

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**Region 1**
**Portland, Oregon**

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April 2000

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**Nestucca Bay National Wildlife Refuge**
**Tillamook County, Oregon**

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# Conceptual Management Plan
## Neskowin Marsh Unit Addition
## Nestucca Bay National Wildlife Refuge

Tillamook County, Oregon
April 2000

## 1.0 INTRODUCTION

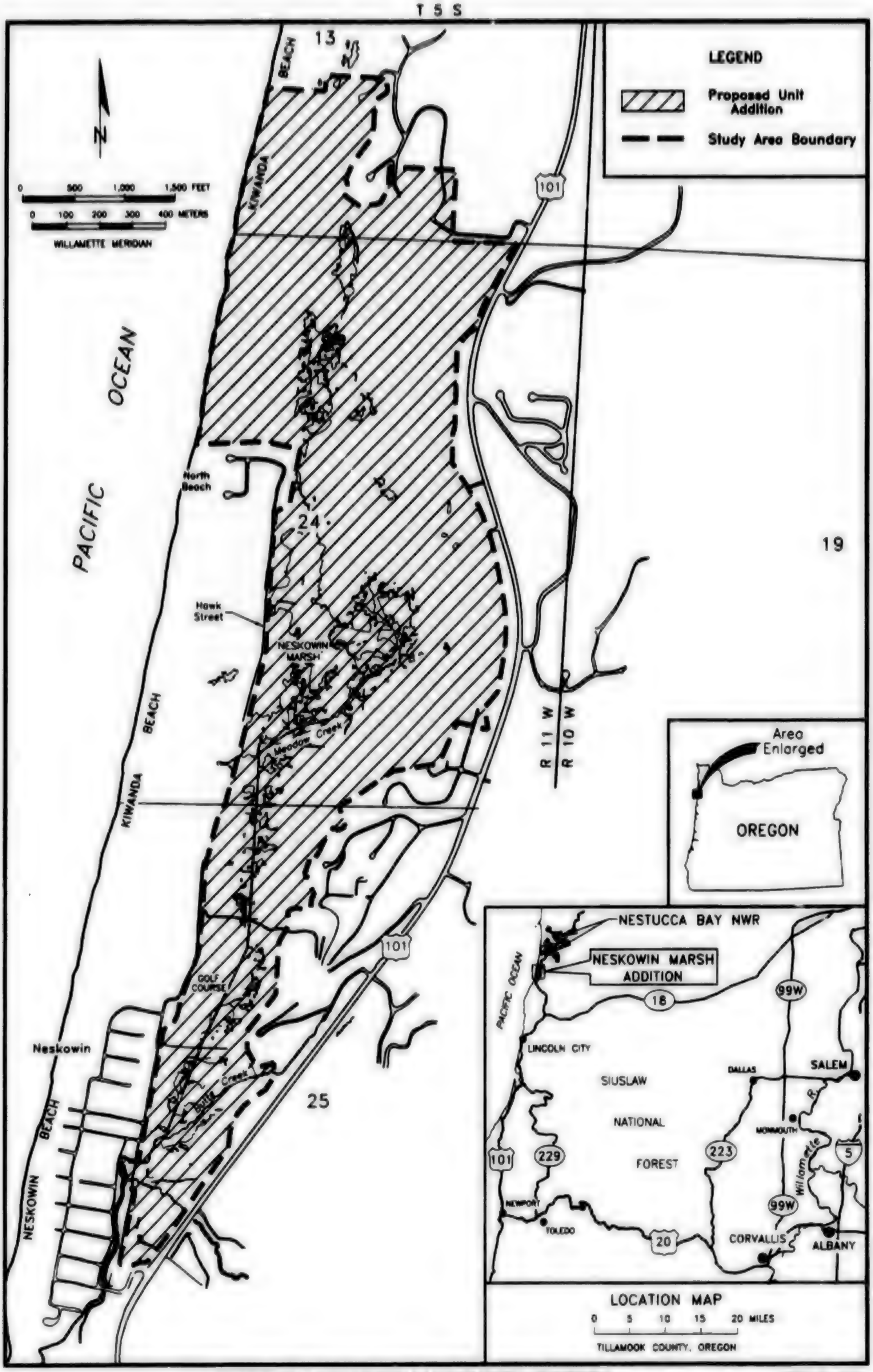
This Conceptual Management Plan provides a general description of the management approaches being considered for the 375-acre Neskowin Marsh Unit addition to Nestucca Bay National Wildlife Refuge (see Figure 1). The U.S. Fish and Wildlife Service (Service) developed this Conceptual Management Plan during the planning process to provide landowners, governmental agencies, and the interested public with a general understanding of anticipated management approaches for the Neskowin Marsh Unit. The purpose of this Conceptual Management Plan is to present a broad overview of the Service's proposed management of wildlife and habitats, public uses, law enforcement, facilities, interagency coordination, and public outreach.

The Service has prepared an Environmental Assessment (EA) and Land Protection Plan for the the Neskowin Marsh Unit Addition. The EA analyzes the environmental consequences of protecting fish and wildlife habitat by expanding the Nestucca Bay Refuge boundary. The Land Protection Plan describes habitat protection methods and lists private lands to be considered for acquisition.

Subsequent to the acquisition, the Service will prepare a Comprehensive Conservation Plan (CCP) for the Refuge. The CCP will detail Refuge operations and will specify the types and locations of public use activities, the monitoring and recovery of endangered and rare species, and other operational needs. The CCP will be developed within the next five years with public input in accordance with the National Environmental Policy Act.

## 2.0 NATIONAL WILDLIFE REFUGE SYSTEM

The National Wildlife Refuge System (System) is the world's largest and most diverse collection of lands set aside specifically for fish and wildlife. Since President Theodore Roosevelt established the Pelican Island National Wildlife Refuge in 1903, the System has grown to more than 500 refuges with at least one National Wildlife Refuge in every state. The System now totals more than 93 million acres.



FEBRUARY 2000

PROPOSED NESKOWIN MARSH UNIT ADDITION
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

*Figure 1.*

## 2.1 Mission of the National Wildlife Refuge System

The mission of the System is to preserve a national network of lands and waters for the conservation and management of fish, wildlife, and plant resources of the United States for the benefit of present and future generations. The Service is the primary Federal agency responsible for migratory birds, endangered plants and animals, certain marine mammals, and anadromous fish.

## 2.2 Guiding Principles of the National Wildlife Refuge System

- Fish and wildlife will not prosper without high-quality habitat, and without fish and wildlife, traditional uses of refuges cannot be sustained. The Refuge System will continue to conserve and enhance the quality and diversity of fish and wildlife habitat within refuges.
- The Refuge System provides important opportunities for compatible wildlife-dependent public use activities including wildlife observation and photography, environmental education and interpretation, fishing, and hunting.
- America's fishing and hunting enthusiasts were among the first partners who insisted on protecting valuable wildlife habitat within wildlife refuges. Conservation partnerships with other Federal, State, and local government agencies, tribes, non-profit organizations, private industries, businesses, and members of the general public can make significant contributions to the growth and management of the Refuge System.
- The public should be given a full and open opportunity to participate in decisions regarding acquisition and management of our national wildlife refuges.

## 2.3 Goals of the National Wildlife Refuge System

- To preserve, restore, and enhance in their natural ecosystems (when practicable) all species of animals and plants that are endangered or threatened with becoming endangered.
- To perpetuate the migratory bird resource.
- To preserve a natural diversity and abundance of fauna and flora on refuge lands.
- To provide an understanding and appreciation of fish and wildlife ecology and the human's role in the environment; and to provide refuge visitors with high quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent these activities are compatible with the purposes for which the refuge was established.

## 2.4 Purpose and Goals of the Nestucca Bay Refuge

A refuge purpose may be specified in or derived from Federal law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum. In addition to providing a basis for making compatibility determinations, a refuge's purposes also serve as a vision or broad mission statement for refuge management and the public.

Nestucca Bay Refuge was established in 1991 with the purposes to (1) protect wintering habitat for Aleutian Canada geese listed as threatened under the Endangered Species Act, (2) protect wintering habitat for dusky Canada geese, and (3) protect diverse coastal wetlands habitats and upland habitat buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife.

The following goals of the Nestucca Bay Refuge reflect the core mission of the Service to protect wildlife resources of national importance while providing compatible opportunities for the public to appreciate and enjoy the natural heritage of the region.

- Protect, restore, and develop habitats for and otherwise support recovery of Federally listed endangered and threatened species and help prevent the listing of candidate species and species of management concern.

- Protect, restore, and develop a diversity of habitats for migratory birds such as shorebirds, wading birds, and neotropical songbirds, with emphasis on waterfowl.

- Protect, restore, and develop a diversity of habitats for anadromous fish such as coho, chinook, and chum salmon, steelhead, and cutthroat trout.

- Protect and restore a diversity of native habitats for indigenous fish, wildlife, invertebrate, and plant species of the Oregon coastal ecosystem.

- Provide high quality opportunities for wildlife-dependent recreation to enhance public appreciation, understanding, and enjoyment of fish, wildlife, habitats, and cultural resources.

## 3.0 REFUGE ADMINISTRATION

As lands are acquired from willing sellers, funding for the operations and maintenance of the new Neskowin Marsh Unit would be needed. Management funds would be needed for new staff, administrative support, program and facilities development, and maintenance. The development of the Refuge staff, programs, and facilities would be phased in over time as the land base and management responsibilities expand. Refuge program and staff development are expected to take several years and would reflect the availability of funds appropriated by Congress to support the Refuge.

Because of the lag time between acquisition and funding for Refuge operations and maintenance, it may appear that the Service is more interested in acquiring land than implementing programs for wildlife stewardship and public use. However, the interim start-up period provides both the Service and public with an opportunity to ensure that the Refuge is developed with sound planning to conserve wildlife and to meet community and national long-term expectations for quality programs.

The budget for the Nestucca Bay Refuge, including the Neskowin Marsh Unit, will include funds for salaries, facilities, capital improvements, equipment and infrastructure maintenance, biological surveys, habitat restoration, and supplies. The Refuge would be part of the Oregon Coast National Wildlife Refuge Complex, whose staff would be available to provide administrative, biological, law enforcement, public use, environmental education, and maintenance expertise. Whenever possible, the talents and skills of volunteers would be used for specific Refuge management projects.

Visitor contact stations and educational facilities may be developed for the Neskowin Marsh Unit of Nestucca Bay Refuge. The Service may seek to build a visitor kiosk, a loop trail or other suitable structures to provide environmental education, interpretation, and wildlife viewing opportunities.

## 4.0 KEY AREAS OF MANAGEMENT FOCUS

The key management focus area for the Neskowin Marsh Unit would be habitat and wildlife management. The Service's primary goal for the Unit would be to protect and enhance the existing habitat and wildlife values through the encouragement of natural ecological processes combined with limited active manipulation of habitats, such as controlling non-native plant species. Service management would also include active restoration of freshwater marsh in the area of the Neskowin Beach Golf Course through establishing native plant species and water flow patterns similar to what occurred prior to converting the freshwater marsh to a golf course.

Other key areas of management focus could include wildlife and plant surveys, wildlife-dependent recreational activities, interagency and public coordination, law enforcement, and facilities development and management.

### 4.1 Habitat Management

The 375-acre Neskowin Marsh Unit includes several rare and relatively undisturbed native habitat types and plant communities that support a wide variety of wildlife species. Habitat management would focus on protecting and enhancing these habitats for the benefit of native plant and wildlife species. Active modification or manipulation of intact native habitats would be avoided. Where human disturbance has occurred, habitat management actions could include eradicating non-native plant species, replanting native species, and restoring natural hydrological conditions where appropriate. Plant surveys would be conducted to provide distribution and abundance patterns for the wide variety of rare and unusual species, as well as for non-native

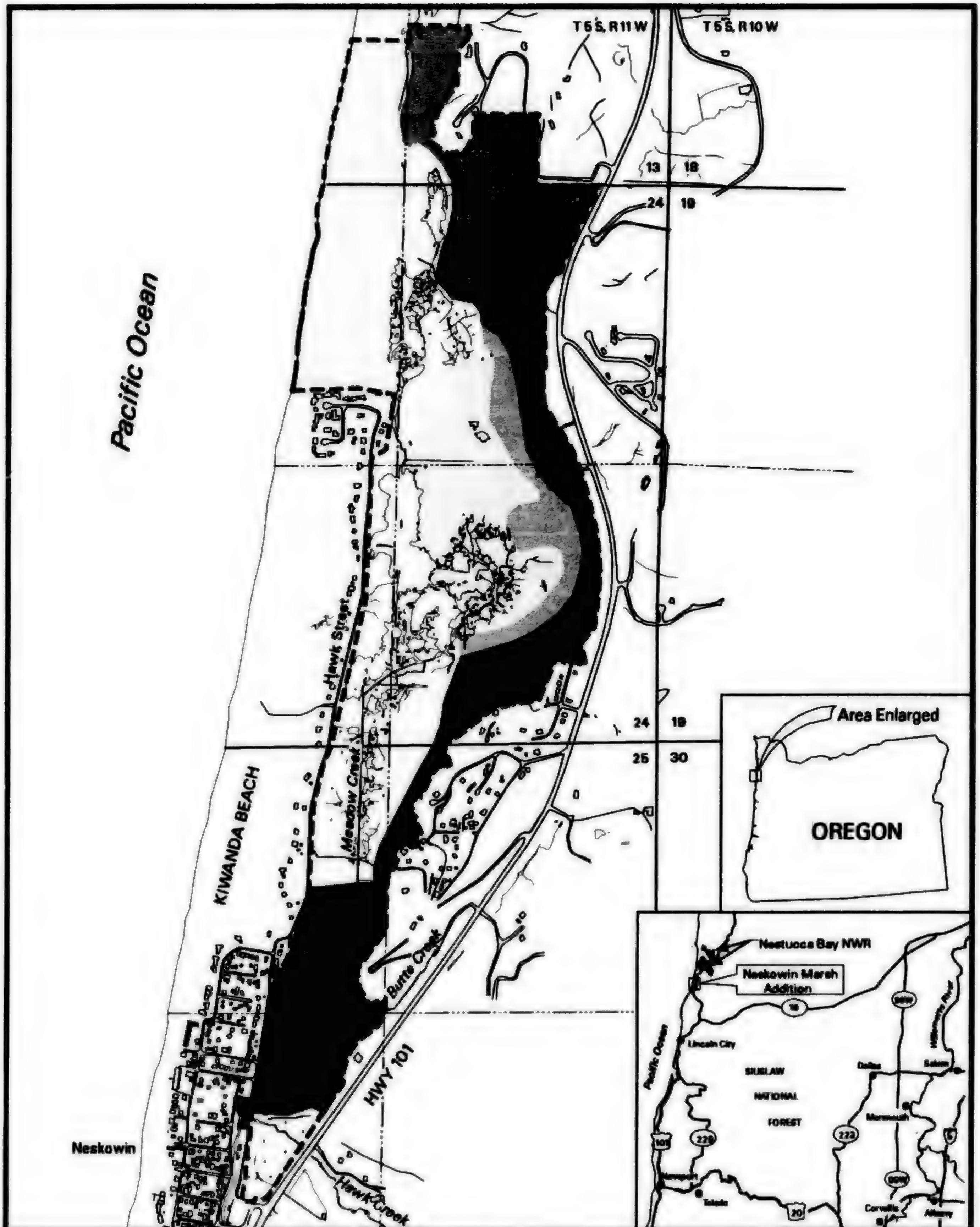


Figure 2 –LAND COVER
NESKOWIN MARSH UNIT ADDITION
NESTUCCA BAY NATIONAL WILDLIFE REFUGE

invasive species which could be targeted for eradication. Wildlife management could include baseline distribution and abundance surveys for amphibians, anadromous fish, small mammals, neotropical migratory birds, and other target wildlife species. The types of land cover at Neskowin Marsh are shown in Figure 2.

### Freshwater Marsh and Bog Habitats

Approximately 164 acres of permanent and seasonal wetlands occur within the project area. In addition to a series of lakes and ponds, diverse wetland habitats include rare shrub carr, sedge fen, and sphagnum bog peatlands, the latter of which represents the largest known occurrence of acid-forming *Sphagnum fuscum* mire on the Oregon coast (The Nature Conservancy 1998). These wetland habitats support a very diverse flora, including giant bur-reed (*Sparganium eurycarpum*), bulrush (*Scirpus spp.*), sedges (*Carex spp.*), bog cranberry (*Vaccinium oxycoccos*), Labrador tea (*Ledum glandulosum*), cotton-grass (*Eriophorum angustifolium*), Pacific crabapple (*Malus fusca*), and round-leaved sundew (*Drosera rotundifolia*). The rare moss *Pohlia sphagnicola* occurs on sphagnum hummocks in the marsh (The Nature Conservancy, 1991).

Preliminary surveys in the southern marsh area have revealed substantial use by fry and smolt-sized coho salmon (*Oncorhynchus kisutch*) and cutthroat trout (*Oncorhynchus clarki*). Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*) also spawn in Neskowin Creek, and may use Neskowin Marsh as well. In addition, fish surveys have identified western brook lamprey (*Lampetra richardsoni*), threespine stickleback (*Gasterosteus aculeatus*), sculpin (*Cottus spp.*), northwestern salamanders (*Ambystoma gracile*), rough-skinned newts (*Taricha granulosa*), red-legged frogs (*Rana aurora*), and a variety of aquatic insect larvae. Neskowin Marsh also provides ideal habitat for a tremendous variety of birds, mammals, and invertebrates.

Management strategies and goals would focus on protecting and enhancing these rare and important wetland habitats and their associated plant, fish, and wildlife species. The northern portion of the wetland habitats are relatively undisturbed and largely intact. The southern portion was altered early in the 20th century, when a series of drainage ditches were created by the Tillamook Cranberry Company to drain the marsh for commercial cranberry production. These ditches continue to drain the southern marsh areas in dry weather, and modifications may be considered in order to restore former hydrological conditions and enhance wetland habitats.

### Upland Meadow, Shrub and Forest Habitat

Wetland areas are bordered on the west by a narrow forested strip and on the east by a larger mixed forest, and upland meadow and shrub habitats. The forested areas are dominated by red alder (*Alnus rubra*), Sitka spruce (*Picea sitchensis*), and western hemlock (*Tsuga heterophylla*) accompanied by a variety of understory plant species. The upland meadow habitat is dominated by a variety of grasses, slough sedge (*Carex obnupta*), and trailing blackberry (*Rubus ursinus*) while the upland shrub habitat is comprised of salal (*Gaultheria shallon*), thimbleberry (*Rubus parvifloris*), bracken fern (*Pteridium aquilinum*), nutka rose (*Rosa nutkana*), sword fern (*Polystichum munitum*), and black hawthorne (*Crataegus douglasii*). These areas will be managed as important buffer habitat for the adjacent wetlands, as well as for their intrinsic value to wildlife species, including migratory neotropical birds, reptiles, amphibians, and small mammals. Management activities would focus primarily on removal of non-native vegetation where necessary.

**Dune Habitat**

Dune habitat occurs along the northwestern edge of the project area, and consists of foredunes stabilized primarily by introduced european beachgrass (*Ammophila arenaria*) and to a lesser extent by native dunegrass (*Elymus mollis*). Management activities would focus primarily on limiting and eradicating invasive, non-native woody plant species from these areas.

## 4.2 Population Monitoring

The project area encompasses a unique complex of habitats that support a number of endangered, threatened, or rare plant and animal species. One of the goals of the Neskowin Marsh Unit is to protect, restore and enhance native habitats for the conservation and recovery of endangered, threatened and special status species. To help achieve this goal, biological surveys will be conducted to:

- inventory for the status of endangered, threatened, and rare plant and animal species;
- establish baseline population information for fish, wildlife, and plant resources; and
- monitor resource responses to restoration and management, both in the short-term and long-term.

In addition to endangered and threatened species, initial surveys will focus on anadromous fish, plants and botanical communities, amphibians, and small mammals. These surveys would create opportunities for partnerships with other Federal and State agencies, non-profit groups such as The Nature Conservancy and The Native Plant Society of Oregon, universities, local school groups, and volunteers.

## 4.3 Public Use and Wildlife-Dependent Recreational Activities

All public entry and use of Refuge lands is at the discretion of the Refuge Manager. Wildlife-dependent public use is generally encouraged on national wildlife refuges as long as those uses are compatible with the primary purposes of the Refuge and those uses are consistent with other management programs and uses.

### 4.3.1 Refuges are Primary-Use Areas

Units of the National Wildlife Refuge System are managed as primary-use areas; that is, primarily for the benefit of fish, wildlife, and their habitats. In addition, refuges are closed to other uses unless specifically and formally opened. This contrasts with units of other Federal land management systems that are managed under a multiple-use mandate (e.g., national forests administered by the U.S. Forest Service and public lands administered by the U.S. Bureau of Land Management). Hunting, fishing, wildlife observation and photography, and environmental education and interpretation are priority public uses of the Refuge System. These uses must receive enhanced consideration over other uses in refuge planning and management.

### 4.3.2 The Compatibility Standard

Before any uses are allowed on a national wildlife refuge, Federal law requires a formal compatibility determination. A compatible use is defined as a use that, in the sound professional judgement of the refuge manager, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the affected refuge. Sound professional judgement is defined as a decision that is consistent with the principles of fish and wildlife management and administration, available sciences and resources (funding, personnel, facilities, and other infrastructure), and adherence to the requirements of the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee) and other applicable laws. If resources are not available to design, operate, and maintain an activity, the refuge manager will take reasonable steps to obtain outside assistance from the State and other conservation interests. If adequate funding or staffing assistance cannot be identified, then the activity cannot be allowed.

### 4.3.3 Interim Compatibility Determinations

The Service is required by the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee) to identify, prior to acquisition of the new refuges or refuge additions, existing owner-authorized, wildlife-dependent recreational activities that would be allowed to continue on an interim, or temporary basis, following Service acquisition. The Service is not required to complete interim compatibility determinations for uses that did not previously exist and were not owner-authorized on the proposed Refuge. The interim compatibility determinations for wildlife-dependent public uses temporarily bridges the time period between the acquisition of new Refuge lands and the completion of a Comprehensive Conservation Plan which will thoroughly review public uses with public input. The comprehensive conservation planning process for the Nestucca Bay Refuge is scheduled to be initiated within the next five years

The Interim Compatibility Determinations located in Appendix A have identified wildlife observation and photography, and environmental education and interpretations as compatible public uses in the interim period (see Table 1). Because hunting and fishing are not existing uses on the proposed Neskowin Marsh Unit, completion of an interim compatibility determination is not required. Therefore, hunting and fishing would not be allowed in the interim period. Wildlife photography and environmental education and interpretation are not existing uses at Neskowin Marsh, however, several community members have requested such public uses be allowed, therefore, the Service completed interim compatibility determinations on these uses. The interim compatibility determinations identified opportunities to provide wildlife photography and environmental education and interpretation in a compatible manner on a limited basis.

**Table 1. Interim Compatibility Determination Matrix**

| Wildlife-Dependent Recreational Activity | Existing Activity? | Compatible for Interim Period? | Funds and Staff Available to Manage? | Interim Use Allowed? |
|---|---|---|---|---|
| Hunting | NO | NO | NO | NO |
| Fishing | NO | NO | NO | NO |
| Wildlife Observation | YES | YES | NO | YES |
| Photography | NO | YES | NO | YES |
| Environmental Education | NO | YES | NO | YES |
| Interpretation | NO | YES | NO | YES |

Neskowin Marsh is small with the wetlands encompassing about 200 acres. Houses border the marsh on two sides, and a foot path, that links neighborhoods to the community center and beach access runs along the south end of the marsh. The close proximity of the marsh to human activity causes disturbance to wildlife using the habitat.

Adjacent to the west side of the marsh is a small, quiet, but congested neighborhood with poorly maintained one-lane streets. Members of the local community and "The Friends of Neskowin" have voiced opposition to public use development along the west side of the marsh because the streets are not in good enough condition to support increased traffic. Increased traffic on the one-lane streets may make exit from the community difficult during an emergency such as fire or tsunami.

Wildlife observation and photography, and environmental education and interpretation would be compatible if developed in an environmentally sensitive manner and if access were provided along the east side of the proposed Refuge expansion area, off of U.S. Highway 101. At this location, parking could be provided adjacent to the highway and a trail system could be developed with an overlook. The developments would be designed to ensure that wetlands, particularly the sensitive and rare bog habitats, would not be adversely impacted.

### Wildlife Observation and Photography

There are no developed wildlife observation trails or blinds within the proposed Refuge expansion area. Compatible wildlife observation and photography opportunities could be allowed from a developed trail and/or overlook. Although opportunities for wildlife viewing would be somewhat limited since any trail or overlook would be developed on the edge of the marsh, interpretive panels could describe wildlife that is present and explain how to identify species by sight and sound. In addition, although wildlife photography opportunities would also be somewhat limited from a trail or overlook, there would be opportunities to photograph wildlife habitat and dramatic coastal scenery and vistas. The construction of blinds or platforms closer to the center of the marsh for wildlife observation or photography opportunities are not anticipated because such development could negatively impact the fragile marsh and bog ecosystem and the human activity could further impact wildlife found at Neskowin Marsh.

### Environmental Education and Interpretation

There are currently no developed environmental education or interpretation facilities within the proposed expansion area. Compatible environmental education and interpretation opportunities could be provided from a developed trail and/or overlook. Interpretive panels could be strategically located to discuss the importance of the fish and wildlife, their habitats, and the need to protect them. This would give the visiting public the opportunity to view this rare and unique habitat and learn about the resources without adversely impacting the marsh, wildlife, or the community of Neskowin. Local school groups and visiting schools from interior locations could use the facility for educational purposes, and a lesson plan could be developed for the Neskowin School and the Tillamook County School District.

## 4.4 Law Enforcement

Enforcement of Federal laws on the Refuge is important to safeguard visitors, conserve and protect natural resources, and protect public and private property. Oregon Coast National Wildlife Refuge Complex staff currently includes one member with law enforcement authority. The Refuge officer would work closely with other Federal authorities, the Tillamook County Sheriff's Department, Oregon State Police, Oregon Department of Fish and Wildlife, and other Federal, State and local law enforcement agencies to control trespass, violations of wildlife laws, and other violations of law.

## 4.5 Facilities Development and Management

The Neskowin Marsh Unit would be administered as part of the Oregon Coast National Wildlife Refuge Complex headquartered in Newport, Oregon. The development of the Refuge facilities, program, and staff would be phased in over time as the land base and management responsibilities expand. Refuge program and staff development are expected to take several years and would reflect the availability of funds appropriated by Congress to support the Refuge.

Boundaries of any lands acquired by the Service will be posted with refuge signs at regular intervals to provide the public knowledge of specific boundary locations.

## 4.6 Interagency and Public Coordination

The Neskowin Marsh Unit lies adjacent to private, State, and Federally-owned or managed lands, creating a unique opportunity to work closely with private landowners, various public groups, and other agencies to initiate a coordinated resource management approach. Opportunities include, but are not limited to cooperative research activities, public education and interpretation programs, and other public use-oriented programs. The Service will pursue partnerships with the local community of Neskowin, Tillamook County, Tribes, other Federal, State, and local agencies, conservation and nonprofit groups, and private landowners to meet mutual goals and objectives whenever possible.

# Appendix A

## Interim Compatibility Determinations

# INTERIM COMPATIBILITY DETERMINATION
for
**Wildlife Observation, Photography,**
**Environmental Education, and Interpretation**
on the
**Proposed Neskowin Marsh Unit**
**Nestucca Bay National Wildlife Refuge**

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## Part I. Overview of Refuge Purposes and Interim Public Uses

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**Uses Considered:** Wildlife Observation, Photography, Environmental Education, and Education

**Station Name:** Nestucca Bay National Wildlife Refuge - Proposed Neskowin Marsh Unit

The proposed Neskowin Marsh Unit (Unit) would expand the Nestucca Bay Refuge by as much as 375 acres. The Unit includes 15 tracts of land with 12 separate landowners . This Interim Compatibility Determination applies to the interim management period for the Neskowin Marsh Unit only. The interim period refers to the time between Service acquisition and completion of a Comprehensive Conservation Plan (CCP).

**Date Established:** Nestucca Bay National Wildlife Refuge - March 21, 1991.
Neskowin Marsh Unit - Proposed

**Establishing and Acquisition Authorities:**

Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742(a)-754)
Endangered Species Act of 1973, as amended (16 U.S.C. 1532-1544, Stat 884)
Refuge Recreation Act of 1962, as amended (16 U.S.C. 460k-460k-4)
Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d)
Refuge Recreation Act of 1962, as amended (16 U.S.C. 460k-460k-4)
Emergency Wetland Resources Act of 1986, as amended (16 U.S.C. 3901-3932)

**Purpose for which Established:**

Nestucca Bay Refuge was established with the purposes to (1) protect wintering habitat for Aleutian Canada geese listed as threatened under the Endangered Species Act, (2) protect wintering habitat for dusky Canada geese, and (3) protect diverse coastal wetland habitats and upland habitat buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife.

**Management Goals of Nestucca Bay National Wildlife Refuge and the Proposed Neskowin Marsh Unit Addition.**

Protect, restore, and develop habitats for and otherwise support recovery of Federally listed endangered species and help prevent the listing of candidate species and species of management concern.

Protect, restore, and develop a diversity of habitats for migratory birds such as shorebirds, wading birds, waterfowl and neotropical songbirds.

Protect, restore, and develop a diversity of habitats for anadromous fish such as coho, chinook, and chum salmon, steelhead, and cutthroat trout.

Protect and restore a diversity of native habitats for indigenous fish, wildlife, invertebrate, and plant species of the Oregon coastal ecosystem.

Provide high quality opportunities for wildlife-dependent recreation to enhance public appreciation, understanding, and enjoyment of fish, wildlife, habitats, and cultural resources.

**Other Applicable Laws, Regulations, and Policies:**

Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703-712)
National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321-4347)
Coastal Zone Management Act of 1972 (16 U.S.C 1451-1464)
Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-4601-11)

**Description of Existing Uses:**

All the parcels within the proposed Neskowin Marsh Unit are privately owned. Wildlife observation along the fringe of the proposed expansion area is the only wildlife-dependent public use activity that occurs. This use occurs primarily from the foot path that runs east to west along the northern edge of the Neskowin Beach Golf Course. Wildlife observation also takes place when waterfowl congregate on the Golf Course during spring, fall, and winter flooding. Although fishing occasionally occurs, it is not considered an existing wildlife-dependent public use because it occurs without the landowner's approval. Local individuals have also documented isolated incidents of big-game hunting, waterfowl hunting, and canoeing in the study area, but these activities were not open to the general public.

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## Part II. Interim Compatibility Determination
## for
## Environmental Education and Interpretation
## on the
## Proposed Neskowin Marsh Unit
## Nestucca Bay National Wildlife Refuge (Refuge)

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**Description of Proposed Uses:**

During the interim period between Refuge expansion and the development of a CCP, compatible public use programs could be implemented provided that key tracts of lands can be acquired and funding to develop the public use program, and associated staffing and facilities, can be obtained.

Neskowin Marsh is extremely small with the wetlands encompassing about 200 acres. Houses border the marsh on two sides and a foot path that links neighborhoods to the community center and beach access runs along the south end of the marsh. The close proximity of the marsh to human activity causes disturbance to wildlife using the habitat.

Adjacent to the west side of the marsh is a small, quiet, but congested neighborhood with poorly maintained one-lane streets. Members of the local community and "The Friends of Neskowin" have voiced opposition to public use development along the west side of the marsh because the streets are not in good enough condition to support increased traffic. Also, increased traffic on the one-lane streets may make exit from the community difficult during an emergency such as fire or tsunami.

There is an opportunity to provide public uses in an environmentally sensitive manner along the east side of the proposed Refuge expansion area, off of U.S. Highway 101. At this location, parking could be provided adjacent to the highway and a trail system could be developed with an overlook. The developments would be designed to ensure that wetlands, particularly the sensitive and rare bog habitats, would not be adversely impacted.

Since human activities surrounding the marsh already disturb wildlife, public use development would be strictly confined so that human activities would not further impact the marsh or wildlife. Public use would be confined to a trail and/or overlook area along the eastern edge of the proposed Refuge expansion area and use would be restricted to daylight hours only.

Funding for public use development does not currently exist, however, avenues to obtain funding are already being explored. For example, the Service would seek additional funding internally and would seek partnerships with other public agencies, businesses, and conservation groups to support the staff, facilities, and other resources necessary to provide safe, high quality public uses.

## Environmental Education and Interpretation

There are currently no developed environmental education or interpretation facilities within the proposed expansion area. Compatible environmental education and interpretation opportunities could be provided on a developed trail and/or overlook. Interpretative panels could be strategically located to discuss the importance of the fish and wildlife, their habitats, and the need to protect them. This would give the visiting public the opportunity to view this rare and unique habitat and learn about the resources without adversely impacting the marsh, wildlife, or the community of Neskowin. Local school groups and visiting schools from interior locations could use the facility for educational purposes, and a lesson plan could be developed for the Neskowin School and the Tillamook County School District.

### Anticipated Impacts on Refuge Purpose:

These proposed uses would not impact the ability of the Refuge to protect diverse coastal wetland habitats and upland habitat buffers for waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife. In fact, the Service's effort to protect these habitats and resources could be aided by increased public awareness. Human activity, however, can adversely impact the wildlife using these habitats. Uncontrolled access, access through the interior of the marsh, or failure to remain in designated areas would result in disturbance to sensitive wildlife such as nesting waterfowl, wading birds and songbirds. In addition, fragile bog plants could easily be trampled and eliminated from the area and damage to wetland habitat could impact threatened coho salmon that are present in the marsh. There is also concern for the potential illegal collection of rare plants, animals, and insects.

### Stipulations Necessary to Ensure Compatibility:

Public use would only be allowed if funding were obtained to develop appropriate facilities, interpretive materials, and support needed staffing. Facilities development would be carefully planned and constructed to avoid adverse impacts to habitats and fish and wildlife. Public use levels and associated biological effects would be monitored to ensure that adverse impacts were not occurring.

Access to the public use facilities would be allowed only between sunrise and sunset. The Refuge Manager has the authority to open or close the area to public access as he or she deems necessary to fulfill Refuge purposes. Public access would be reserved to the developed facilities and regulations would be strictly enforced. The Service would implement an active law enforcement program to protect Refuge resources and the visiting public. Collection of plants, animals, and other specimens would be prohibited without a permit.

**Justification:**

Environmental education and interpretation would allow the visiting public to enjoy, experience, and learn about native fish, wildlife, and plants in these unique and rare habitats. Concerns about protecting rare native plants and animals, and the overall integrity of the marsh and bog ecosystem, require that environmental education and interpretation programs be limited to developed facilities located on the periphery of the marsh and that public use be monitored during the interim phase.

**NEPA Compliance for Public Use Programs:**

**____ Categorical Exclusion**
**_X__ Environmental Assessment and FONSI**
**____ Environmental Impact Statements and ROD**

**Determination:**

Environmental education and interpretation conducted from a developed trail and/or overlook in accordance with the stipulations herein would be compatible with Refuge purposes.

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## PREPARERS AND APPROVAL

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**Refuge Determination**

**Prepared by:** ______________________________ ________________
Project Leader, Date
Oregon Coast National Wildlife Refuge Complex

**Project Leader Approval:** ______________________________ ________________
Project Leader, Date
Oregon Coast National Wildlife Refuge Complex

**Regional Office Concurrence:**

**Refuge Supervisor:** ______________________________ ________________
Signature Date

**Refuges and Wildlife PARD:** ______________________________ ________________
Signature Date

**North Pacific Coast Ecoregion GARD:** ______________________________ ________________
Signature Date

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## Part II. Interim Compatibility Determination for Wildlife Observation and Photgraphy on the Proposed Neskowin Marsh Unit Nestucca Bay National Wildlife Refuge (Refuge)

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**Description of Proposed Uses:**

During the interim period between Refuge expansion and the development of a CCP, compatible public use programs could be implemented provided that key tracts of lands can be acquired and funding to develop the public use program, and associated staffing and facilities, can be obtained.

Neskowin Marsh is extremely small with the wetlands encompassing about 200 acres. Houses border the marsh on two sides and a foot path that links neighborhoods to the community center and beach access runs along the south end of the marsh. The close proximity of the marsh to human activity causes disturbance to wildlife using the habitat.

Adjacent to the west side of the marsh is a small, quiet, but congested neighborhood with poorly maintained one-lane streets. Members of the local community and "The Friends of Neskowin" have voiced opposition to public use development along the west side of the marsh because the streets are not in good enough condition to support increased traffic. Also, increased traffic on the one-lane streets may make exit from the community difficult during an emergency such as fire or tsunami.

There is an opportunity to provide public uses in an environmentally sensitive manner along the east side of the proposed Refuge expansion area, off of U.S. Highway 101. At this location, parking could be provided adjacent to the highway and a trail system could be developed with an overlook. The developments would be designed to ensure that wetlands, particularly the sensitive and rare bog habitats, would not be adversely impacted.

Since human activities surrounding the marsh already disturb wildlife, public use development would be strictly confined so that human activities would not further impact the marsh or wildlife. Public use would be confined to a trail and/or overlook area along the eastern edge of the proposed Refuge expansion area and use would be restricted to daylight hours only.

Funding for public use development does not currently exist, however, avenues to obtain funding are already being explored. For example, the Service would seek additional funding internally and would seek partnerships with other public agencies, businesses, and conservation groups to support the staff, facilities, and other resources necessary to provide safe, high quality public uses.

**Wildlife Observation:**

There are no developed wildlife observation trails or blinds within the proposed Refuge expansion area. Compatible wildlife observation opportunities could be allowed from a developed trail and/or overlook. Although opportunities for wildlife viewing would be somewhat limited because any trail or overlook -would be developed on the edge of the marsh, interpretative panels could describe wildlife that is present and explain how to identify species by sight and sound. The development of blinds closer to the center of the marsh for wildlife observation are not anticipated because such development could negatively impact the fragile marsh and bog ecosystem and the human activity could further impact wildlife found at Neskowin Marsh.

**Photography:**

There are no developed wildlife photography blinds or platforms constructed within the Refuge expansion area. Compatible opportunities for wildlife photography could occur from a developed trail and/or overlook on the east side of the marsh. Although wildlife photography opportunities would be somewhat limited because any trail or overlook would be developed on the edge of the marsh, there would be opportunities to photograph wildlife habitat and dramatic coastal scenery and vistas. The construction of blinds or platforms closer to the center of the marsh for wildlife photography opportunities are not anticipated because such development could negatively impact the fragile marsh and bog ecosystem and the human activity could further impact wildlife found at Neskowin Marsh.

**Anticipated Impacts on Refuge Purpose:**

These proposed uses would not impact the ability of the Refuge to protect diverse coastal wetland habitats and upland habitat buffers for waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife. In fact, the Service's effort to protect these habitats and resources could be aided by increased public awareness. Human activity, however, can adversely impact the wildlife using these habitats. Uncontrolled access, access through the interior of the marsh, or failure to remain in designated areas would result in disturbance to sensitive wildlife such as nesting waterfowl, wading birds and songbirds. In addition, fragile bog plants could easily be trampled and eliminated from the area and damage to wetland habitat could impact threatened coho salmon that are present in the marsh. There is also concern for the potential illegal collection of rare plants, animals, and insects.

**Stipulations Necessary to Ensure Compatibility:**

Public use would only be allowed if funding were obtained to develop appropriate facilities, develop interpretive materials, and support needed staffing. Facilities development would be carefully planned and constructed to avoid adverse impacts to habitats and fish and wildlife. Public use levels and associated biological effects would be monitored to ensure that adverse impacts were not occurring.

Access to the public use facilities would be allowed only between sunrise and sunset. The Refuge Manager has the authority to open or close the area to public access as he or she deems necessary to fulfill Refuge purposes. Public access would be reserved to the developed facilities and regulations would be strictly enforced. The Service would implement an active law enforcement program to protect Refuge resources and the visiting public. Collection of plants, animals, and other specimens would be prohibited without a permit.

**Justification:**

Wildlife observation and photography would allow the visiting public to enjoy, experience, and learn about native fish, wildlife, and plants in these unique and rare habitats. Concerns about protecting rare native plants and animals, and the overall integrity of the marsh and bog ecosystem, require that wildlife observation and photography opportunities be limited to developed facilities located on the periphery of the marsh and that public use be monitored during the interim phase.

**NEPA Compliance for Public Use Programs:**

**____ Categorical Exclusion**
**_X_ Environmental Assessment and FONSI**
**____ Environmental Impact Statements and ROD**

**Determination:**

Wildlife observation and photography conducted from a developed trail and/or overlook in accordance with the stipulations herein would be compatible with Refuge purposes.

## PREPARERS AND APPROVAL

**Refuge Determination**

**Prepared by:** ______________________________ ________________

Project Leader,
Oregon Coast National Wildlife Refuge Complex

Date

**Project Leader Approval:** ______________________________ ________________

Project Leader,
Oregon Coast National Wildlife Refuge Complex

Date

**Regional Office Concurrence:**

**Refuge Supervisor:** ______________________________ ________________

Signature

Date

**Refuges and Wildlife PARD:** ______________________________ ________________

Signature

Date

**North Pacific Coast Ecoregion GARD:** ______________________________ ________________

Signature

Date

END

02-19-04